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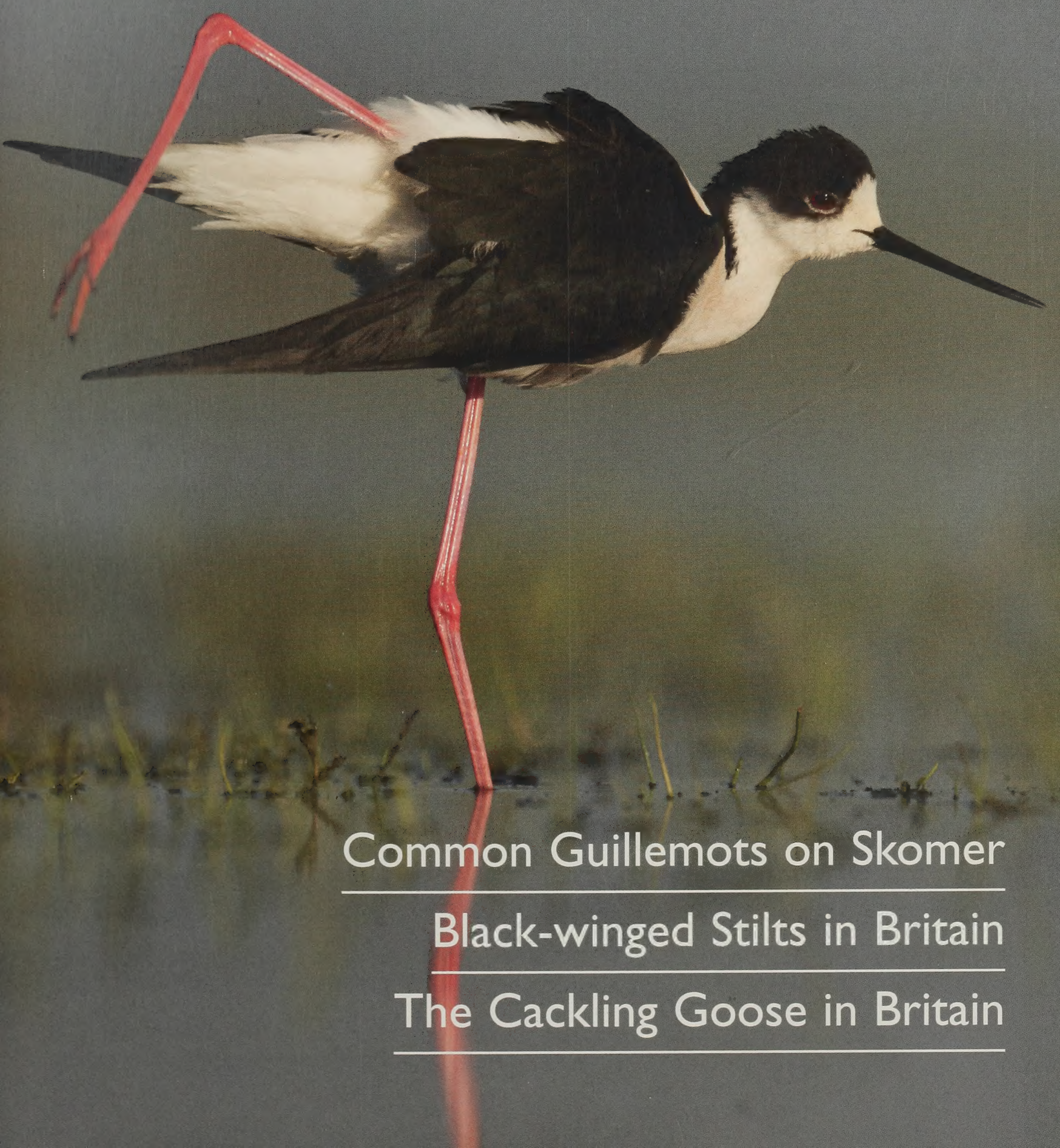

Common Guillemots on Skomer

Black-winged Stilts in Britain

The Cackling Goose in Britain

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Front-cover photograph: Male Black-winged Stilt *Himantopus himantopus*, Hortobagy, Hungary, May 2016.
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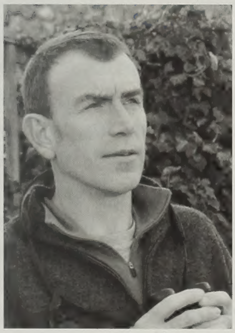

I well remember cycling along the north Norfolk coast in 1987, and stopping off at Holme where a nesting pair of Black-winged Stilts on the reserve eventually fledged two chicks. They were the first young raised in Britain since the birds at Nottingham Sewage Farm in 1945 and it seemed like a freak event, perhaps something that might never happen again. And indeed it was a long time before another Black-winged Stilt chick fledged in this country, but the events of the past three years show how quickly bird populations can react to changing circumstances. The paper in this issue by Malcolm Ausden and his colleagues at the RSPB is an authoritative and welcome update on the current status of the Black-winged Stilt in Britain. Precipitous declines remain the greatest challenge to conservationists, but amid the realisation that our countryside supports an awful lot less wildlife than it did in the middle of the last century, there is certainly a feelgood factor about new arrivals.

Roger Riddington

British Birds aims to: ❖ provide an up-to-date magazine for everyone interested in the birds of the Western Palearctic; ❖ publish a range of material on behaviour, conservation, distribution, ecology, identification, movements, status and taxonomy as well as the latest ornithological news and book reviews; ❖ maintain its position as the journal of record; and ❖ interpret scientific research on birds in an easily accessible way.

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Missing Woodcocks

Many birdwatchers have a special place where they go in times of stress, or just to enjoy being close to nature. One of my favourite places is the Tower Hide at Wicken Fen, in Cambridgeshire, at dusk. Perhaps I am especially attracted to it because the tower is of a similar age to me and still standing strong. The hide offers panoramic views across the Fen and can occasionally become crowded – especially in winter, when Hen Harriers *Circus cyaneus* patrol the reeds near the tower before roosting – so I try to avoid climbing up there on weekends. Even though I prefer to be there on my own, I have often shared memorable observations and great conversations with complete strangers in this hide. Sometimes, I take friends with me, especially those visiting from other countries, and in spring my prime target is to show them roding Woodcocks *Scolopax rusticola* at dusk. The Tower Hide is possibly unique in western Europe in that from it you can watch roding Woodcocks passing at eye level, uttering their weird 'quorring' calls. Each time I hear that high-pitched 'psiek', there is a pulse of excitement as I scan for the approaching bird. Only when it is close can you hear the quorring, which is accompanied by curious, jerky body movements, slightly arching, a sort of Woodcock hiccup! Sometimes the displaying male is pursued by another bird, presumably a female, when the 'psiek' calls are uttered more frequently. Several different males may be encountered in an evening, although precise numbers are difficult to determine as the roding males overlap in territory and cover a wide range for a long period at dusk.

Over the past 20 years, I have enjoyed between two and four roding Woodcocks from the Tower Hide on my spring visits and have not noticed any change in numbers. A view of a roding Woodcock at dusk was something I could reliably promise my visiting friends. Consequently, I was shocked when I did not find any Woodcocks at Wicken Fen last spring. Because of commitments elsewhere, I first visited Wicken rather late in 2016, in March. With my youngest son, I climbed to the Tower Hide early in the evening. Perhaps we left the hide too soon, and I hoped that we had simply missed them; but on returning in mid April it became clear that there were no roding Woodcocks on that part of the Fen. Further visits in late April and in May confirmed their absence.

The missing Woodcocks brought a curious feeling of mourning, something I have never felt this strongly before. It was almost like losing a family member or a close friend and I resolved to search for an explanation. I know that Woodcock populations are declining steadily throughout the UK and even in many European countries (Lutz & Jensen 2005; BirdLife International 2015). The UK breeding population has declined by 30% in the past decade, to about 55,000 pairs, and the species' range has contracted by more than 60% over the past 40 years (Heward *et al.* 2015). But surely Wicken Fen, England's oldest Nature Reserve, would be a safe haven for them given that it is well managed and sufficiently wet for this special wader to breed and thrive?

The Woodcock eluded me for many years. Growing up in northern Germany, I rarely ventured into the realm of the Woodcock. I still remember, in the early 1970s, visiting some ancient woodland near my home town of Bremen. Two of my birding pals and I stayed at a youth hostel during the Easter vacation in order to visit the woodland, which we thought must be good for Woodcocks. Despite scanning the glades in the evenings, we never managed to find them. No-one was guiding us or available to tell us where to look, but it was still a great week off school, with many Black *Dryocopus martius* and Middle Spotted Woodpeckers *Dendropicos medius* and several encounters with Fire Salamanders *Salamandra salamandra*. Throughout the 1970s, my encounters with Woodcocks remained only as early spring or autumn migrants, most predominantly on Helgoland, where very large numbers were recorded up to the 1970s. Sadly, many were targeted by hunters – up to 1,000 birds shot in a single day on 23rd March 1965 and 14th November 1977. Unsurprisingly, numbers there have declined ever since (Dierschke *et al.* 2011). Woodcocks are still hunted relentlessly, throughout Europe, and the numbers are staggering. In both France and Italy, more than one million Woodcocks are shot each year, and even in the UK the annual bag is 150,000 (Lutz & Jensen 2005). Millions of Russian and Scandinavian Woodcocks winter here. They often mix with our breeding birds, most of which winter in the UK or move to France and the near Continent, with equally uncertain chances of survival.

It was only when I came to Scotland, as a visiting scholar at Aberdeen University in 1981–82, that I finally found my first roding Woodcocks. I cycled all over Scotland and, wherever I pitched my tent, Woodcocks greeted me at dusk with their mysterious flight and weird calls. I quickly became used to the birds featuring regularly at my campsites, especially near Ballater, in North-east Scotland, and on the Isle of Mull, in Argyll. I began to appreciate the bird more and more, and I decided to follow Desmond Nethersole-Thompson's (1971) advice to adopt one's own special bird. His was the Greenshank *Tringa nebularia*. Rather subconsciously at first, but later more boldly, I chose the Woodcock. I became so familiar with Woodcocks that I heard them more often and wondered how many times I might previously have missed them in the German forests of my youth.

Globally, the Woodcock is still a common bird, it may even be the most abundant wader on the planet. Wetlands International (2006) estimated the global population in 2006 to be between 10 and 25 million, but the difference between the minimum and maximum numbers might suggest that those estimates are rather crude. In its recent assessment of European birds, BirdLife International (2015) estimated 7–9 million birds in Europe, of which 84% are in Russia. The long-term trend from this largest population is a decline of 5–30% (Blokhin & Fokin 2015). According to the EU Single Species Action Plan for the Woodcock (Lutz & Jensen 2005), the species has an unfavourable status in Europe, although many European countries do not confirm the overall declining trend.

In the late 1980s, I worked in Poland and I was delighted to see Woodcocks again in good numbers. The wet fen mires surrounded by alder *Alnus* woodlands, or pine forest on sandy islands, seemed to have a great appeal for Woodcocks and to my delight they were roding in numbers above wide open areas of the Biebrza Marshes, but also in Białowieża and many other places in eastern Poland. Moving farther east and birding in European Russia in the mid 1990s and 2000s, I also found Woodcocks at densities to remind me of the old days in Scotland.

In early April 2016, I returned to Scotland with my pal Ian and we revisited some of the sites we had cycled to in 1982. I was confident that we would find a Woodcock at any of our previous campsites. Even though we were no longer camping and preferred the comfort of B&Bs and hostels, we managed to be out at dusk in suitable areas. But no Woodcocks emerged as the light faded and, sadly, they no longer accompanied us whenever we stopped.

Back at Wicken, I began to ask fellow birdwatchers for sightings of Woodcocks in spring 2016, but no-one seemed to have seen any. The records of birds seen in early March were most likely to have been birds on passage. I searched at other places nearby and found Woodcocks at two different sites. At Chippenham Fen, on the Cambridgeshire/Suffolk border, they were still present in good numbers. Natural England kindly invited me to come along to their annual coordinated multi-point survey of roding Woodcocks in late May. Despite the rather cool weather, we had over 40 encounters in two hours at one single point, often seeing two birds together – a roding male with a female in pursuit. It seems that this fen is still home to a viable population of 12–13 roding birds, which is great news and more than a comfort to me. But it leaves me even more puzzled over what has happened at Wicken.

The fact that Chippenham Fen has so many roding birds hints that hunting may not be (solely) to blame. The National Trust's site manager kindly gave me a complete guided tour of Wicken Fen at dusk. He explained the different management schemes and his detailed knowledge of the site gave me a much clearer understanding of the complexities of managing England's oldest nature reserve. He too is deeply concerned about the missing Woodcocks. We discussed recent management activities and possible factors that might account for the disappearing birds. To my mind, there might have been a little too much cutting back of the woodland, while some of the brash is left to rot on the ground, which might not be good for ground-nesting birds. The Woodcocks at Wicken prefer the shrubby areas rather than the taller woodland for nesting according to those few who found nests back in the 1970s (Thorne & Bennett 1982). This type of management has been ongoing for many years – might it now be taking its toll? Yet the Woodcock's decline was so sudden. What about deer? The deer may have gradually altered the habitat since the numbers of Muntjacs *Muntiacus reevesi* especially have increased and are not controlled, as they are at Chippenham Fen. Yet it strikes me as unlikely that (admittedly fast-growing) deer populations could have caused such a sudden decline. Another issue at Wicken is an increase in water levels, which occurred only a few years ago and no-one seems to know why. But again, I cannot imagine that higher water levels could harm the Woodcock breeding population, and they may in fact even be beneficial. There are still so many unanswered questions and I can only begin to understand what is going on. It feels as though I am in the middle of a murder investigation: several witnesses have been interviewed, there are more to come but still no prime suspect.

This is not an obituary, like those others have written when dealing with far more threatened birds. But this silent spring at Wicken Fen has been a wake-up call, a call for greater awareness of one of our disappearing waders and a call for action. The Woodcock might indeed be one of the most common waders in the world, but we have seen other very common waders, like the Eskimo Curlew *Numenius borealis*, disappearing rapidly and becoming extinct. I am not suggesting that the Woodcock is in danger of following that perilous path. Most of the research on the decline of the Woodcock is, not surprisingly, funded by the shooting fraternity. However, when common birds are declining, or disappearing gradually, this process is perhaps less obvious to hunters or to the wider public. Even though the hunters are probably not the only ones to blame for the missing Woodcocks, I feel that it is surely no longer acceptable to continue hunting this amazing bird. A recent (yes, another) petition on hunting is gathering momentum, at https://petition.parliament.uk/petitions/167410 (see also p. 648). Who would want to shoot a European Golden Plover *Pluvialis apricaria*, a Common Snipe *Gallinago gallinago* or a Woodcock?

I thank the many fellow birders who supported me with insights and ideas, but particularly John Hughes (National Trust, Wicken Fen) and Mike Taylor (Natural England); Bill Eddie, for inspiring me to write the essay and for his and Michael Holdsworth's valuable comments.

References

BirdLife International. 2015. *European Red List of Birds.* Office for Official Publications of the European Communities, Luxembourg.

Blokhin, Y., & Fokin, S. 2015. Results of the 17th National Woodcock roding census in Russia. *Newsletter of the Woodcock & Snipe IUCN Specialist Group* 41: 11–13.

Dierschke, J., Dierschke, V., Hüppop, K., Hüppop, O., & Jachmann, K. F. 2011. *Die Vogelwelt der Insel Helgoland.* OAG Helgoland, Helgoland.

Heward, C. J., Hoodless, A. N., Conway, G. J., Aebischer, N. J., Gillings, S., & Fuller, R. J. 2015. Current status and recent trend of the Eurasian Woodcock *Scolopax rusticola* as a breeding bird in Britain. *Bird Study* 62: 535–551.

Lutz, M., & Jensen, F. P. 2005. European Union management plan for Woodcock *Scolopax rusticola* 2006–09. European Union, Strasbourg.

Nethersole-Thompson, D. 1971. *Highland Birds.* Highlands and Islands Development Board, London.

Thorne, C., & Bennett, T. 1982. *The Birds of Wicken Fen.* Wicken Fen Group & the National Trust.

Wetlands International. 2006. *Waterbird Population Estimates.* 4th edn. Wetlands International, Wageningen.

Christoph Zöckler

Christoph Zöckler has been passionate about waders and conservation since childhood. For the past 20 years he has been working in the Russian Arctic and Southeast Asia and coordinates the Spoon-billed Sandpiper Task Force.

News and comment

Compiled by Adrian Pitches

Opinions expressed in this feature are not necessarily those of *British Birds*

Floodgates open for applications to cull Buzzards

Following the precedent set by Natural England's granting of a licence to 'control' up to ten Common Buzzards *Buteo buteo* to protect Pheasant *Phasianus colchicus* poults in rearing pens (*Brit. Birds* 109: 487), a further four applications have followed in quick succession. NE has announced that: 'Natural England is currently considering four further applications for a licence to control Buzzards to prevent damage to livestock. Overall, the number of applications for Buzzard control licences is in keeping with recent previous years. Each application will be assessed within the framework described above. When a decision has been reached on all of the applications, we'll provide a further public update… Specifically regarding the control of Buzzards, the High Court recently considered the issues surrounding the granting of a licence in order to protect livestock – and gave clear legal direction on that decision-making process. This includes the need to balance the protection of wild birds against the requirement to prevent serious damage to livestock and the need to adopt a consistent approach to the interpretation of policy. Natural England revised its guidance to take account of the High Court ruling – and consulted stakeholders on the revised guidance at the time.' (The full press release is at: www.gov.uk/government/news/buzzard-licensing-applications)

RSPB Conservation Director Martin Harper has reacted with sorrow and anger: 'To me this seems like a perversion of the licensing system. The system of licensing we have in this country is a good one. It sets a series of strict tests that must be met before the usual legal protection of a species can be put aside. However, any system is only as good as the way it is used. Killing a native and still recovering bird of prey to allow a few extra non-native gamebirds, dubiously classed as "livestock" to justify the killing, is wrong.

'Some will once again try to portray the RSPB as being "anti-shooting". We're not. We are anti the killing of a magnificent and protected bird of prey for no good reason. It's striking that other birds of prey, most notably England's Hen Harriers *Circus cyaneus*, are in the situation Buzzards were 100 years ago – persecuted to the brink of extinction. Indeed the situation is more dire for Hen Harriers today than it ever was for Buzzards. Something has gone terribly wrong in priority setting when the Government's conservation agency is spending more time thinking about whether to grant licences to kill a recovering raptor species than it is trying to end the illegal killing of another.

'I'd also like clarification about the process by which future licences will be monitored. The way previous licences have been issued leaves a lot to be desired. The ability to take joy in seeing soaring Buzzards across the UK should be available to all of us. Taking it away, even in small part to benefit a commercial interest, should be subject to public debate. That clearly isn't happening here. Transparency is a must if this isn't to look like a shady backroom deal.' Read the full blog post at: http://bit.ly/2ciB8kl

Meanwhile, an e-petition has been launched by Philippa Storey on the Government website calling for a suspension of the Buzzard 'control' licences: https://petition.parliament.uk/petitions/163483 The Government's initial response to the first 14,000 signatures was unsympathetic: 'Buzzards are widespread in England and the issuing of control licences has no impact on their conservation status. This approach balances conservation of wildlife and supporting the rural economy.'

Yet another Hen Harrier disappearance

As Martin Harper states, the war against Britain's raptors is being fought on several fronts. Illegal persecution has indeed driven the Hen Harrier to the brink of extinction as a breeding bird in England – but the population in Scotland is no safer.

Following the depressingly predictable disappearance of a satellite-tagged young male in the Monadhliath Mountains (*Brit. Birds* 109: 562–563), another newly fledged harrier has also abruptly gone off the radar – this time in the Cairngorms National Park. Blanaid Denman, the RSPB's Hen Harrier LIFE+ Project Manager, explained: 'Brian, named after raptor worker Brian Etheridge, fledged from a nest in Perthshire and stayed close to the nest site until the beginning of August when he moved north into southern Inverness-shire.

'The bird then spent the next few weeks over various areas of managed grouse moor within the National Park with frequent transmissions providing detailed information about his daily travels. Suddenly, and without warning, those transmissions stopped on 22nd August. There was no indication of battery failure or other technical problems.

'Brian is the fourth satellite-tagged Hen Harrier to suddenly disappear off radar this year, after our 2014 birds Highlander and Chance vanished in County Durham and South Lanarkshire respectively this spring, and 2016 bird Elwood disappeared in the Monadhliaths last month.'

The Scottish Government has ordered a review of satellite-tracking data following reports of the disappearance of eight Golden Eagles *Aquila chrysaetos* in the Monadhliath Mountains (*Brit. Birds* 109: 490). Roseanna Cunningham MSP, Cabinet Secretary for Environment, Climate Change and Land Reform, said: 'The latest reports of satellite-tagged Golden Eagles disappearing on or near grouse moors are very disturbing and disappointing [and] I have instructed officials to analyse the evidence from around 90 surviving and missing satellite-tagged eagles, to discover if there is a pattern of suspicious activity.'

The excellent Raptor Persecution UK blog sums up the situation best: 'To be frank, we don't need to wait for a review to detect "a pattern of suspicious activity" – the pattern of illegal persecution has been known for years... Endless peer-reviewed scientific papers and government reports... have unequivocally linked the illegal killing of raptors with intensively managed driven grouse moors. Why pretend nobody knows what's going on?' And our dogged blogger then goes on to list nearly 60 illegal persecution incidents in the Cairngorms National Park alone since 2003, which have resulted in the death or disappearance of more than 50 protected birds.' See http://bit.ly/2d7KEGa

And for those who claim that satellite tags are unreliable, simply going on the blink rather than signalling the illegal killing of yet another young harrier or Golden Eagle, the evidence from the tagging programme for Montagu's Harriers *C. pygargus* readily refutes that argument. The Dutch team that tags Monty's in six European countries, including here in the UK, uses the same make and model as those used on Britain's Hen Harriers. Since 2006 the Dutch Montagu's Harrier Foundation has satellite-tagged 67 adult harriers. Lead researcher Raymond Klaassen reports: 'Technical failures generally are rare. We have recorded a few throughout the years (6% of all cases). However, failures have always been preceded by irregular transmission periods and, most importantly, a drop in battery voltage (another parameter monitored by the transmitter). This makes it relatively straightforward to distinguish between a likely mortality event and a likely transmitter failure.' See http://bit.ly/2d9S2nW

Chris Packham calls for a moratorium on shooting of waders

Mark Avery has proved the power of the petition to Parliament. His e-petition calling for an end to driven grouse shooting was scheduled for debate in Westminster Hall on 31st October following an evidence-gathering session that could be an uncomfortable experience for the industry in the wake of a litany of raptor persecution incidents in 2016.

Now Chris Packham has launched his own e-petition. He's calling for a moratorium on the shooting of Woodcock *Scolopax rusticola*, Common Snipe *Gallinago gallinago* and Golden Plover *Pluvialis apricaria*, all of which are legal quarry species – and all of which are declining species (see also p. 646). This is Chris's mission statement: 'Woodcock, Snipe and Golden Plover are shot in the UK despite serious, ongoing population declines. A moratorium should be imposed to allow the impact of shooting to be established by independent scientific investigation and any necessary regulations introduced to ensure that shooting is sustainable.

'BTO, JNCC and RSPB Bird Trends data report a 76% decline in Woodcock in the last 25 years. Although the wintering population is increased by migrants, BTO and GWCT studies of shot birds report that 17% are UK residents. It is Red-listed. In the same period Snipe (Amber-listed) have declined by 89%. Between 1993 and 2013 Golden Plover decreased by 17% in England and 25% in Scotland. Chris's e-petition is here: https://petition.parliament.uk/ petitions/167410

Bernard Tucker Memorial Lecture 2016

This year's lecture, again hosted by both the Oxford Ornithological Society and the Ashmolean Natural History Society, and sponsored by *BB*, will be given by the BTO's Director of Science, James Pearce-Higgins. The title is *Birds and Climate Change*. It's a much-discussed topic, but what does the impartial scientific evidence tell us? This year's lecture will be given at Exeter Hall, Oxford Road, Kidlington, Oxfordshire, on 14th November 2016, at 7.45 pm; and it will be written up in *BB* in due course.

Summer migrants seem reluctant to leave our shores

Analysis of 60 years of data amassed by Fair Isle Bird Observatory shows convincingly that summer migrants are not only arriving earlier but they're also leaving later. The Fair Isle Migration Project is a scientific collaboration between the Fair Isle Bird Observatory Trust and the University of Aberdeen. One of the team's latest findings is that Barn Swallows *Hirundo rustica* and House Martins *Delichon urbicum* are migrating up to a fortnight later than they did a few decades ago.

However, the timing of spring and autumn migration was not found to be closely linked. In any given year, migrants that arrive on their breeding grounds early in spring might be expected to depart early in autumn too, as soon as their chicks have fledged. But migration timing in consecutive seasons occurred independently – birds that migrated early in spring did not consistently migrate early in the following autumn. Some species are staying for longer each year, apparently taking advantage of longer, warmer summers in Europe. They may even be nesting more often.

The study used daily observations of migrant birds from FIBO to measure how spring and autumn migration timing has changed between 1955 and 2014. Lead author Will Miles said: 'Environmental conditions are changing rapidly at a global scale. In response to these changes, the seasonal life-cycles of plants and animals are shifting too, often in dramatic and unexpected ways. It's too early to know for sure exactly why bird migrations now last so much longer in spring and autumn, but it's possible that conditions in Europe and Africa have gradually become more favourable for long-distance migration, and the birds are now under less pressure to migrate quickly within a short time window. [For example,] Willow Warblers *Phylloscopus trochilus* used to migrate within a five-week period in spring but now this species is seen on migration for up to ten weeks.'

See *Global Change Biology* http://onlinelibrary.wiley.com/doi/10.1111/gcb.13486/full

Oxford makes a Swift entrance

The RSPB has been granted £83,700 from the Heritage Lottery Fund to build a new 'Swift City' in Oxford. Following a similar scheme set up in Belfast in 2013, the two-year project will maintain current Common Swift *Apus apus* nesting sites in the city and add 300 further sites onto new and existing buildings in an effort to combat a worrying decline in the Swift population in recent years.

In Britain, the Swift nests almost exclusively in urban areas. But numbers are falling – the population has declined by 38% since 1994 – with the loss of nesting sites (particularly older buildings with gaps beneath the eaves) the most obvious explanation. To address this, the Swift City project will research Oxford's present Swift population and nest sites and use this information to work closely with builders and planners to maintain them, and also incorporate new sites into the city's infrastructure.

Oxford has a long scientific and cultural association with the Swift. The colony nesting at Oxford University's Natural History Museum has been intensively studied by the Edward Grey Institute since 1948, and is one of the longest continuous studies of a single bird species in the world. Starting in January 2017, the RSPB will work alongside partners including Oxford University, the Museum of Natural History, Oxford City Council and the local Wildlife Trust to improve the breeding prospects for Swifts in the city. A showpiece 'Swift tower' is planned, which will combine new nest sites with a public arts project.

Alderney Bird Observatory

Alderney Bird Observatory and Field Centre was founded on 1st March 2016, as part of the Alderney Wildlife Trust, with the intention of establishing the first accredited bird observatory in the Channel Islands. John Horton has been appointed as the first warden, taking a career break from the Metropolitan Police for two years to try and make the dream of the project's founder – Channel Islander Paul Veron – a reality.

Alderney is almost 6 km long and 1 km wide, and situated in the English Channel, 13 km northwest of the French Cotentin Peninsula and 100 km south of Portland Bill. The volume of birds in the first spring was surprising and, despite limited resources, over 4,100 passerines were ringed, including totals of over 50 Common Redstarts *Phoenicurus phoenicurus*, 100 Firecrests *Regulus ignicapilla* and 1,000 Willow Warblers, plus rarities such as two Western Subalpine Warblers *Sylvia c. cantillans* and a Western Bonelli's Warbler *Phylloscopus bonelli*. The number of local birders can be counted on the fingers of one hand, yet recorded visual migration was equally exciting with good falls of passerines particularly

Paul Veron

355. Alderney Bird Observatory, 2016.

during April. Individual flocks of 40–60 Yellow Wagtails *Motacilla flava* were seen on several days, there was an impressive flock of 17 Ring Ouzels *Turdus torquatus* and 150 Spotted Flycatchers *Muscicapa striata* on 5th May.

During the summer, the work of the long-standing seabird ringing programme was continued, processing over 700 European Storm-petrels *Hydrobates pelagicus* and 800 Gannets *Morus bassanus* among other species. Local breeding birds include Dartford Warblers *Sylvia undata*, which, with seven territories mapped, appear to have had a good year.

Alderney is one of those places where you can come and find your own birds. And perhaps it will prove to be the sleeping giant of European bird migration. Further information can be found at www.alderneybirdobservatory.org or contact John Horton at abowarden@alderneywildlife.org

The Thames & Chilterns Bird Atlas

A new internet-based bird atlas (www.thamesandchilternbirdatlas.org.uk) has been launched, covering the counties of Bedfordshire, Berkshire, Buckinghamshire, Hertfordshire and Oxfordshire. For the first time it is possible to view in one place the breeding and wintering distributions and abundance for all bird species at a tetrad scale for this large tract of southern England as well as the changes in bird populations since the 1980s and, for Bedfordshire and Hertfordshire, since the late 1960s.

The site aims to provide a source of information for birdwatchers and naturalists interested in the area; a reference source for local policy-makers; and a source of information for scientists researching the region's birds. Users can compare the distribution between species and between different surveys, and there is a unique opportunity to see changes over a period of 20 years, or 40 years in the case of Bedfordshire and Hertfordshire, at a much finer scale than the national 10-km atlas.

Some well-known national trends, like the retreat of some declining farmland species, such as Grey Partridge *Perdix perdix* and Corn Bunting *Emberiza calandra*, can be tracked, as can the spread of species such as Common Buzzard, Red Kite *Milvus milvus* and some of the recent arrivals like Cetti's Warbler *Cettia cetti* and Little Egret *Egretta garzetta*.

Carr Vale

Carr Vale, one of the most prominent birding sites in Derbyshire, is best known for the extraordinary record of continuous coverage by a small team of watchers, led by retired policeman Mark Beevers. The site includes a Derbyshire Wildlife Trust reserve, which abuts a council-owned one.

On 27th August 2016, the team reached an incredible 6,000 consecutive days of recording regardless of weather, work or other commitments. That all started on 23rd March 2000. Coverage of the site has been appropriately rewarded with no fewer than 46 county rarities so far. In 2016 alone, these have included such star birds as Caspian Tern *Hydroprogne caspia* and Sabine's Gull *Xema sabini*, both of which delighted many observers. In other years, highlights have included Ring-necked *Aythya collaris* and Ferruginous Ducks *A. nyroca*, Cattle Egret *Bubulcus ibis*, White Stork *Ciconia ciconia*, Glossy Ibis *Plegadis falcinellus*, Black Kite *Milvus migrans*, Lesser Yellowlegs *Tringa flavipes*, Wryneck *Jynx torquilla*, Golden Oriole *Oriolus oriolus* and Common Rosefinch *Erythrina erythrina*.

It's an amazing list, which the team have been pleased to share with many visitors, for a site that sits under the shadow of Bolsover Castle and is so close to the centre of the country. Many congratulations to Mark and the other observers involved.

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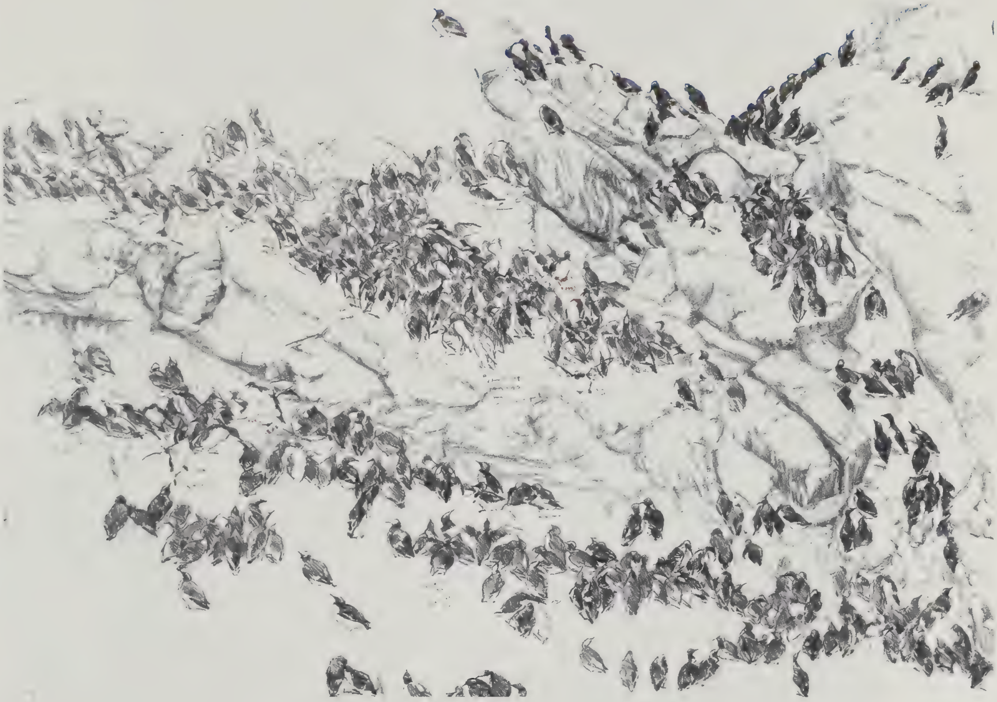
Changes in the numbers of Common Guillemots on Skomer since the 1930s

Tim Birkhead



Common Guillemots *Uria aalge* on Skomer

Abstract Photographic evidence shows that the breeding population of Common Guillemots *Uria aalge* on Skomer, Pembrokeshire, in the 1930s was considerably larger than it is today, and may have comprised around 100,000 individuals. A substantial decline occurred between 1939 and 1946 and is thought to reflect wartime oil pollution, a previously unrecognised effect of the Second World War on UK wildlife. Using the number of ships sunk as an index of oil pollution is consistent with this hypothesis. Since the mid 1980s, Guillemot numbers on Skomer have increased at around 5% per annum, but at 23,746 individuals in 2015, this is still a long way short of the numbers in the 1930s. This study highlights the value of ongoing, long-term monitoring of seabird populations and the necessity of careful archiving of the data.

In the middle part of the twentieth century, it emerged that while some of the UK's breeding seabird populations were increasing (species such as Fulmar *Fulmarus glacialis*, Northern Gannet *Morus bassanus* and some gulls *Larus*), others were decreasing, including Common Guillemot *Uria aalge* (hereafter 'Guillemot'), Razorbill

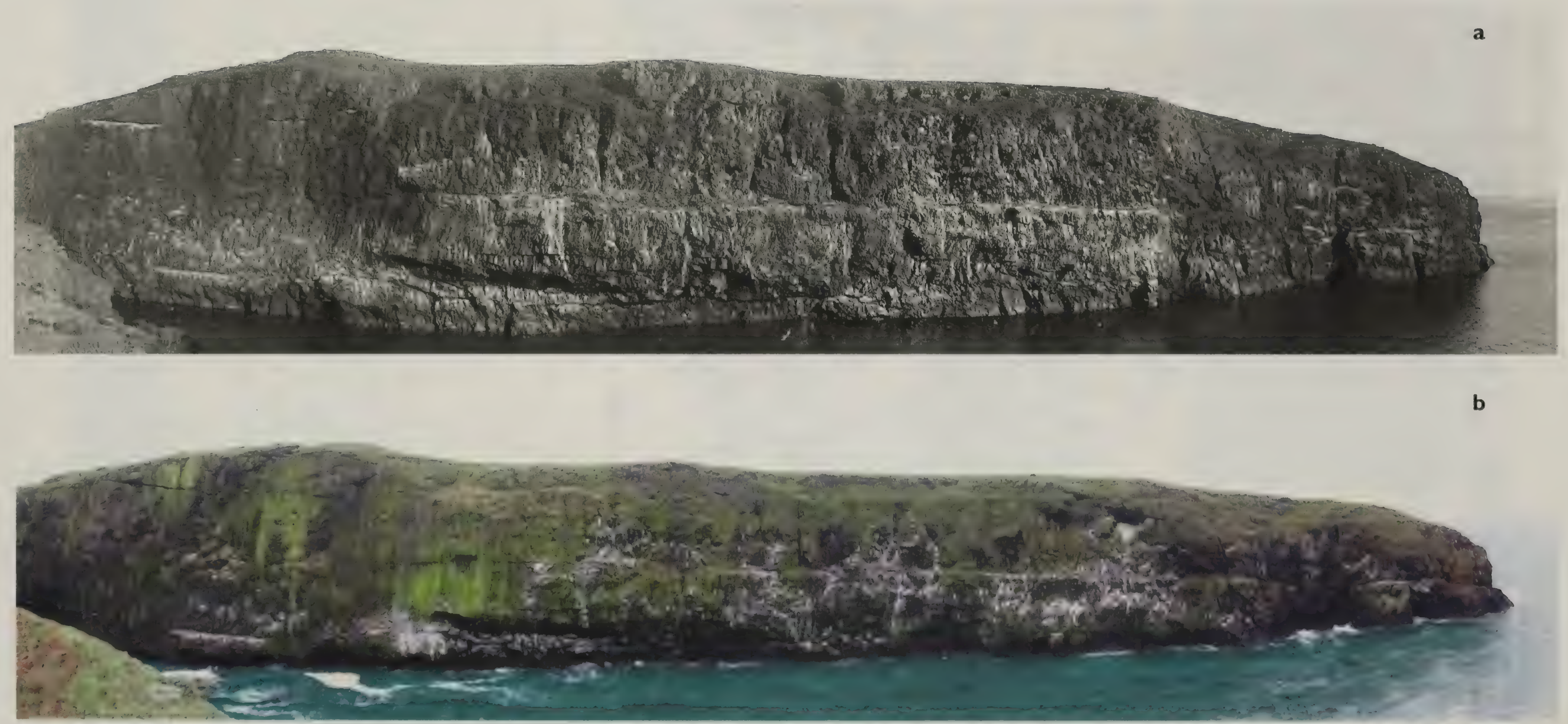


Fig. 1. Overview of the Wick colony on Skomer: (a) 1934 (photograph by R. M. Lockley on 27th May); (b) 2016 (photograph by J. E. Thompson and E. Glendenning, on 20th May, 12 days after the median laying date and hence when most birds were incubating). The difference in distribution is clear.

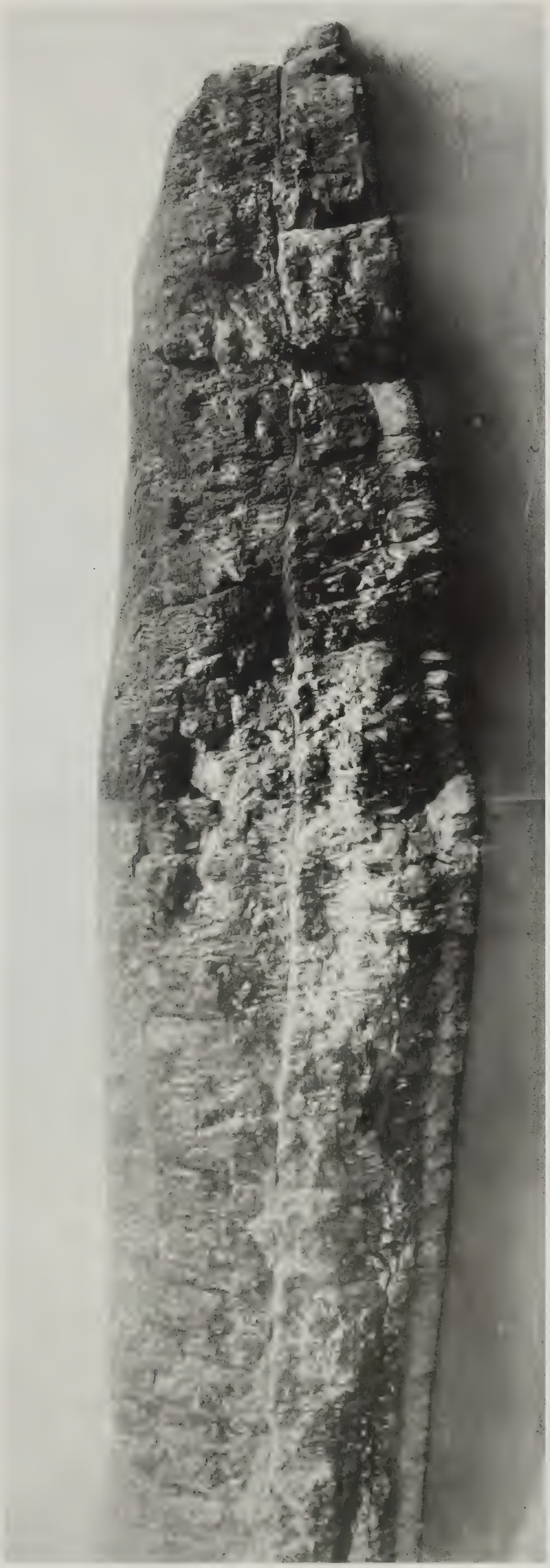


Fig. 2. The Wick in 1889 (photographs taken by H. L. Bridger, probably in July) (courtesy of Mr and Mrs J. R. Scriven).

Alca torda and Puffin *Fratercula arctica* (Fisher & Lockley 1954; Cramp *et al.* 1974). The declines at colonies in southern Britain were particularly noticeable and these were witnessed directly by Ronald Lockley (Fisher & Lockley 1954; Lockley 1958; Buxton & Lockley 1950).

Since the 1980s, the number of Guillemots has increased in southwest Britain and the most recent count of numbers on the breeding ledges on Skomer, Pembrokeshire, in 2015 was 23,746 individuals. This is an almost seven-fold increase on the 3,585 individuals in 1972, when my long-term study of this species on Skomer began (Birkhead 2012). The increase over the last four decades, which has been fairly steady at about 5% per annum (Meade *et al.* 2013), and also apparent at other Irish Sea colonies, is encouraging, especially in the light of population declines and successive years of breeding failure at many colonies in northern Britain (Foster & Marrs 2012). However, the size of the Guillemot population breeding on Skomer in 2015 was still only a fraction of what it was in the 1930s (Birkhead & Ashcroft 1975). This paper aims to evaluate the size of the Guillemot breeding population in the 1930s and to consider a probable cause of the subsequent decline, in the light of what we now know about Guillemot biology and counting methodology.

Standardised census methods for Guillemots and other seabirds were not established until after ‘Operation Seafarer’ in 1969–70, when estimates of the entire UK population of seabird species were made for the first time (Cramp *et al.* 1974; Walsh *et al.* 1995). In 1963, however, David

Saunders, the first warden on Skomer, had initiated annual counts of all individual Guillemots occupying the Skomer breeding ledges in mid June.

Prior to the 1960s, the number of Guillemots on Skomer is generally thought to have been much larger, although estimates of the size of the population are confusing. Lockley (1958) stated that, in 1930, there were 'at least 5,000 pairs'. He gave no indication of how that number was reached, but there is no evidence that it was based on a systematic count of birds occupying colonies around the whole island. It is also worth noting that it was not possible to estimate the numbers of *pairs* of Guillemots until the relationship between individuals and pairs was accurately established in the 1970s (Birkhead 1978). Lockley's estimate of 'at least' 5,000 pairs, sounds like a guess; it certainly does not appear to have been a count.

Buxton & Lockley (1950) stated that: 'It was estimated that there were in 1946 5,000 Guillemots on Skomer cliffs at one time, or approximately that number of pairs'. At first sight this does not sound like a decrease since the 1930s, yet Lockley & Buxton also stated that: '… we ourselves noticed a very definite decrease in the numbers of Guillemots inhabiting the main ledges of the Wick in 1946. When we had last seen these ledges in the summer of 1939 there had been no gaps in that long line of breeding Guillemots; but in 1946 there were three distinct gaps of unused ledge'. The Wick is a 450-m long, 60-m high cliff face on the south side of Skomer, along which runs a major fault on which many Guillemots breed. A set of six photographs of the Wick taken by Lockley in 1934 confirm that Guillemot numbers at that time were much higher than has ever been recorded since (fig. 1).

Remarkably, there is an even earlier photograph of the Wick, almost certainly taken in 1889. That photograph (two images abutted together; fig. 2) is now in an album owned by descendants of the Vaughan Palmer Davies family who leased Skomer from 1861 to 1892. The photograph was probably taken in July, after most Guillemots would have left, but the distribution of droppings on the cliff and in particular on the main horizontal fault, provides a good indication of their distribution at that time. A careful comparison of the 1889 and 1934 photographs strongly suggests that the distribution of Guillemots was very similar, perhaps indicating that the population may have been stable between the late 1880s and 1930s.

Using the 1934 photographs, Birkhead & Ashcroft (1975) plotted the distribution of Guillemots on the Wick in 1934 and compared it with the distribution of the 1,110 birds counted there in 1974. It was clear that the distribution had shrunk and numbers decreased very substantially since 1934, and that in 1974 the line of Guillemots along the main fault comprised several discrete groups. At least one other study has since used a similar photographic approach to document historical changes in Guillemot numbers (Hentati-Sundberg & Olsson 2016).

Since the early 1960s, Guillemot numbers on Skomer decreased, and then subsequently increased. In 1963 David Saunders counted 4,856 individual Guillemots on the entire island, but by 1972 this had fallen to 2,364 (Birkhead & Ashcroft 1975; Meade *et al.* 2013). Again, Saunders's count of 4,856 for 1963 does not sound very different from Lockley's *estimate* of 5,000 individuals in 1946, but the photographs of the Wick from 1934 show that between then and the 1970s there had been a massive decline in numbers.

Annual counts of all individual Guillemots around the entire coastline of Skomer have since been continued and they provide one of several ways of assessing the size of the Skomer population (Meade *et al.* 2013). Although useful, these 'whole-island counts' have several limitations, including: (i) they generate just a single value for each year with no estimate of how reliable that is; (ii) counts of different parts of the island are conducted over several days, often in different weather conditions; and (iii) counts are made from land, others – less accurately – from a boat, for those areas not visible from the island.

An improved scheme for monitoring Skomer's Guillemots was initiated in the 1970s based on a detailed study of colony-attendance patterns (Birkhead & Ashcroft 1975; Birkhead 1978). This identified the best time of day and the best time of year for counts, and the number of counts to be made

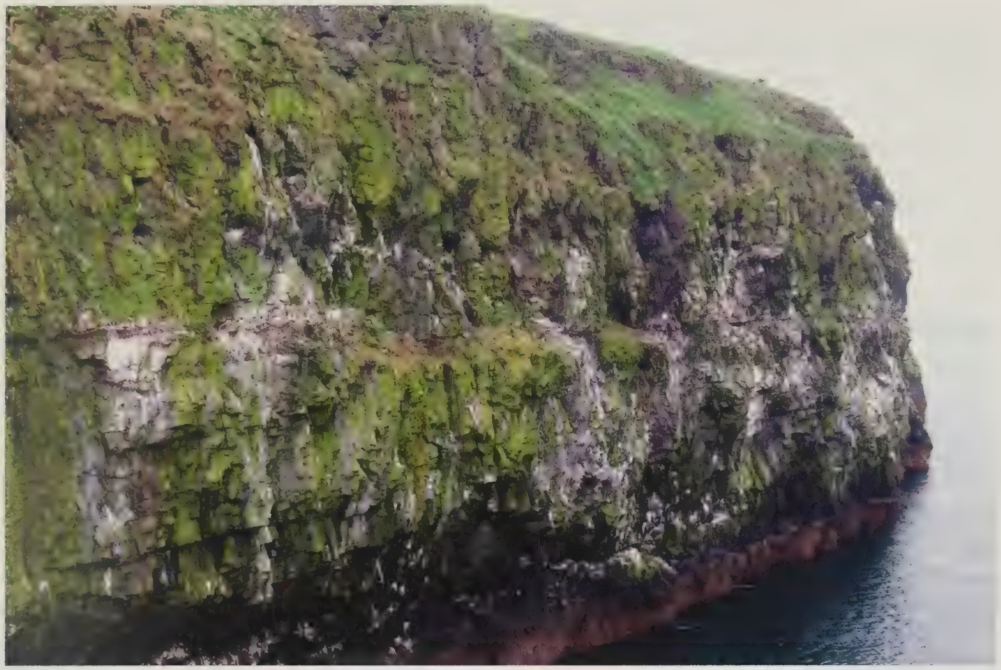


Fig. 3. Oblique view of the Wick on 16th May 2016 showing the lack of Common Guillemots *Uria aalge* on the broadest sections of ledge on the main fault. In 1934 (see fig. 1a) these broad ledges were all occupied by breeding Guillemots.

each year at each plot. Three study plots were established: the entire cliff face at High Cliff, South Stream Cliff and Bull Hole. The best time to count was between 08.00 and 16.00 hrs, during the first half of June when most birds were incubating and when numbers on the cliffs were least variable. The number of individuals counted over ten days provided the mean and a measure of variation for each study plot for each year. Crucially, as data accumulated over the following years, we showed that the numbers in each of the three study plots varied in parallel, and with the whole-island counts (Hatchwell & Birkhead 1991). In other words, either alone or together the study plot counts provide a good index of the entire Skomer population. Similarly, the single count of Guillemots on the Wick (which constitutes around 28% of the island total) during the annual whole-island counts, also varied in parallel with numbers on the study plots and the whole-island counts (unpublished data). Thus, as the Guillemot population changed over time, counts at any one of the three study plots, or at the Wick, provided a reasonably good estimate of changes in the total population.

Since we now know much more about Guillemot biology and we have systematic counts from the 1960s to the present day, is it possible to estimate the Guillemot population on Skomer in its heyday of the 1930s? While not able to count the total number of individual Guillemots on Lockley's 1934 photographs of the Wick, we can estimate (albeit in one dimension only) the length of ledge occupied, and this can be used as a very approximate index of the population at that time. An important point is that despite the seven-fold increase in numbers since the 1970s, the total length of ledge occupied on the Wick in 2015 was still considerably less than in 1934.

One simple calculation is to assume that the length of ledge occupied in 1934 represents 100% occupation, then estimate the length of ledge occupied in 2015 and extrapolate from the 2015 count to estimate the 1934 population. The 2015 length of occupied ledge is about 56% of that occupied in 1934, and since the whole island population in 2015 was 23,746, the estimate for the entire island in 1934 is (100/56 × 23,746) 42,403 individuals. This calculation makes two assumptions. First, that the Wick is representative of the whole island, which, as we have shown, it is. The second is that the density of birds on the ledges in 2015 is the same as in 1934, which it is not: it is lower.

As the Guillemot population on Skomer declined, so too did breeding density. This is because Guillemots are highly faithful to a particular site; even as numbers decline, they continue to breed at their individual breeding sites and do not immediately coalesce into a smaller number of high-density groups. Based on many years of studying Guillemots on Skomer and elsewhere, this is what I think happened: as the density of breeding groups declined after about 1939, those birds remaining on the broader ledges would have become increasingly vulnerable to predation of eggs and chicks by gulls and corvids. High-density breeding is the Guillemot's way of protecting its eggs and chicks from predators (Birkhead 1977). It is no coincidence that Buxton & Lockley (1950) commented on the effect of gull predation on Skomer's Guillemots at a time when numbers were decreasing. Persistent breeding failure over successive years would have resulted in Guillemots eventually abandoning the broadest breeding ledges (and the persistence of birds on narrower, safer ledges). This would account for the appearance between 1939 and 1946 of three large gaps in the line of Guillemots on the Wick's main ledge, noted by Buxton & Lockley (1950). As the population started to increase again in the 1980s, the groups breeding on narrow ledges expanded, breeding density increased (as shown by Votier *et al.* 2009) and the last ledges to be recolonised were the broadest ledges. Inspection of the main ledge of the Wick shows that several broad areas that were occupied by Guillemots in 1934 were still unoccupied in 2016 (see fig. 3). Indeed, after my colleague Peter Hudson climbed down to the main fault on the Wick in the late 1970s, he told me that a part of that ledge was at least 2 m wide.

One approach is to assume that on the currently unoccupied ledges, which are much broader than the rest (fig. 3), there were five times as many birds in 1934 (fig. 1) as on the rest of the Wick ledge. This provides an estimate for the whole island of 117,000 birds (23,746/56 = 424; 424 × 5 × 44 = 93,280 + 23,746 = 117,026).

We thus have two very rough estimates of the Guillemot population on Skomer in 1934. The first, of 42,000 birds, is clearly a gross underestimate, and even the second, of 117,000 birds, may be an underestimate because a factor of five may be too low. The safest thing is therefore to assume a population of at least 100,000 individuals in 1934. If the monitoring programme and annual counts continue, then it may be possible to verify that Skomer can support this number of birds at some point in the future. Even if the Skomer population continues to increase at its current 5% per annum, however, it will still take three more decades to reach 100,000 Guillemots.

It is worth considering whether the timing of Lockley's 1934 photographs might create any sort of bias. One of the prints is annotated on the back: 'This series taken June 1934' and another, also in Lockley's hand, simply says 'June 1934'. However, Lockley's diary (now in the Skokholm Archive) records that the photographs were actually taken on 27th May 1934: 'At 5 pm we [he and his wife] went to Skomer, very calm and sunny and went out to the Wick… took a whole panorama of the Wick…' and 'We got back [to Skokholm] by 9 pm'. This suggests that the photographs were taken around 18.00–19.00 hrs. Assuming that timing of breeding is similar to that in the last 40 years, the date, 27th May, is ideal for counting, since the birds would have been midway through incubation (Birkhead 1978). The time of day is probably also ideal; at worst it may be biased slightly upwards since the number of birds at the colony tends to increase, by up to 15%, in the evening during mid incubation (Birkhead 1978). However, my estimates of numbers are not based on counts of individual Guillemots, but are based on the distribution of birds on the ledges, which does not vary with the time of day.

One could argue that currently unoccupied sections of the main fault on the Wick are no longer suitable for Guillemots. This seems unlikely because we know that Guillemots often reoccupy previously occupied areas as populations recover. Guillemots also have tremendous potential to change habitat for their own use by destroying vegetation on potential breeding areas. Guillemot colonies grow partly by increasing in density and partly by expanding at the edges. In the latter case this occurs through immature birds loafing at the edges of the colony, where they destroy any vegetation by trampling, scraping and through the actions of their droppings. Expanding colonies are sometimes very obvious from their muddy peripheries (for example in Newfoundland, and on Skomer; pers. obs.). Once the vegetation has been removed, rain erodes the soil so that within a few years a rocky substrate suitable for breeding has been created.

By 1963, when David Saunders made his first count, the number of Guillemots had decreased to 4,856 birds, implying a 95% decline since 1934, assuming a population of 100,000 birds. Lockley's observations (above) suggest that numbers declined particularly steeply between 1939 and 1946 and Buxton & Lockley (1950) speculated that the most likely cause was oil pollution, to which Guillemots are highly susceptible (Bourne 1968, 1970). Buxton & Lockley (1950) also commented on frequent sightings of oiled Guillemots in the vicinity of Skomer in the 1940s, and this was confirmed by Lockley's daughter Ann (Lockley 2013). It seems likely that as a result of the huge numbers of ships sunk during the Second World War, as well as ships cleaning their bilges/tanks at sea, oil pollution was particularly high during the war years. For an index of this effect we can plot the numbers of ships sunk on the west coast of Britain and in the English Channel, where (on the basis of ringing recoveries and recent tracking studies) Guillemots are known to spend part of their time both during and outside the breeding season (Votier *et al.* 2008; unpublished data). Fig. 4

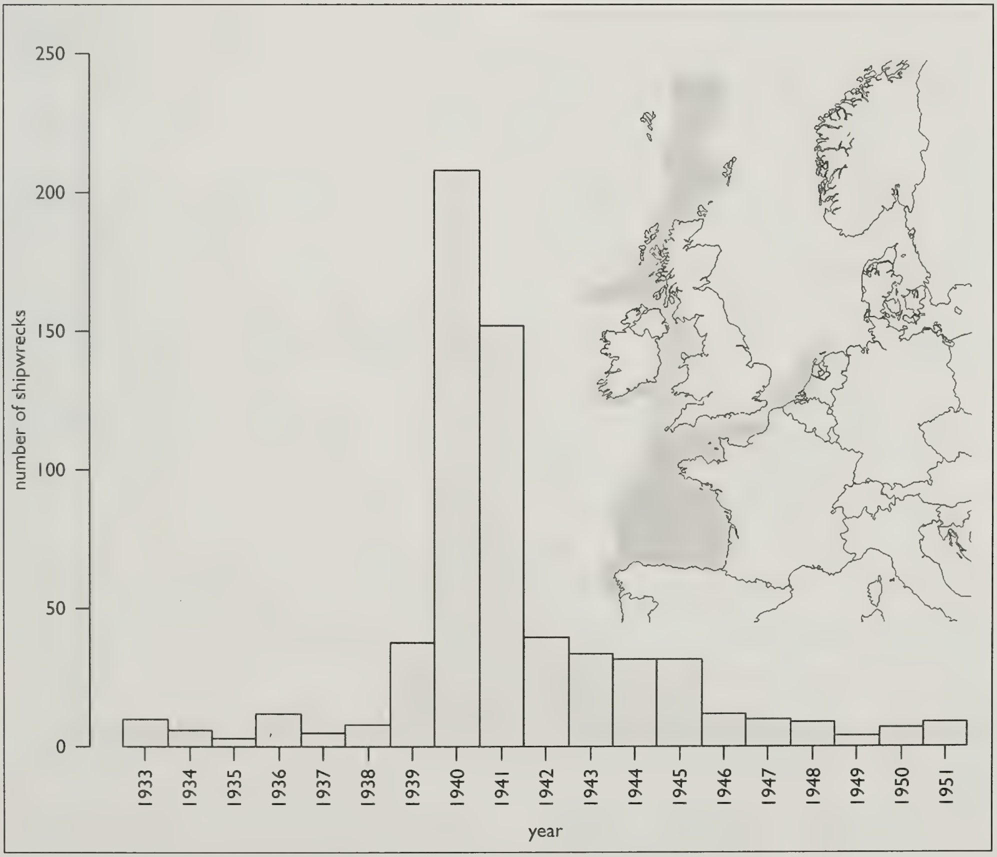


Fig. 4. The annual number of shipwrecks, as an index of oil pollution, occurring in the English Channel and off western Britain between 1933 and 1951 (from Larn & Larn 1995). The shipwreck area (grey hatching) is a small subset of that covered throughout the year by Common Guillemots *Uria aalge* that breed on Skomer (solid grey: based on ringing recoveries and GLS tracking; from Votier *et al.* 2008; T. R. Birkhead *et al.* unpublished).

shows the massive rise in shipwrecks at the start of the war and is consistent with the idea that oil pollution was extensive and considerable. After the end of the Second World War, oil pollution continued, partly through submerged wrecks continuing to release oil, but also because of increased tanker traffic and the persistent cleaning of oil tanks at sea (Bourne 1968, 1970). The magnitude of the effect of Second World War activities on Guillemots (and presumably other marine wildlife) has not previously been appreciated.

Oil pollution did not stop after the end of the war (Bourne 1970). Because of the Guillemots' wide winter distribution (see fig. 4), oiling incidents many hundreds of kilometres from breeding colonies often had a negative effect on breeding populations, as has been shown for Skomer (Votier *et al.* 2005, 2008). While counts of individuals at the colony can detect the effects of such oiling incidents if the mortality is very large, a much more sensitive measure of the effect of oil spills on the population is the mortality rate of individually colour-ringed birds. The results of our long-term study demonstrated that we could detect significant decreases in overwinter survival in years when there had been a oil spill, even when no difference in counts was apparent (Votier *et al.* 2008).

It is worth noting that the changes in Guillemot numbers reported on Skomer are part of a wider trend in colonies in the Irish Sea. Photographs of the Guillemot colony at Elegug Stacks in southern Pembrokeshire from 1918, 1933, 1942, the 1970s and 2015 suggest that, as on Skomer, numbers were high until the 1940s and had dropped dramatically by 1970, and have since increased again. Indeed, not only are the numbers at the two colonies since the mid 1980s closely correlated ($r = 0.978$, 24 df, $p<0.001$), their rates of increase are almost identical: Skomer 5.9% per annum; Elegug 5.6% per annum and a long way from being statistically significantly different (ANCOVA: $F_{1,48} = 0.95$, $p = 0.334$).

On Lundy, 75 km southeast of Skomer, there were 19,000 'pairs' of Guillemots in 1939 (Perry 1940), but only 1,647 in 1969–70 during Operation Seafarer (Cramp *et al.* 1974). The subsequent increase (Brown *et al.* 2011) has been much slower than on Skomer, possibly linked either with the presence of rats (until 2004; Brown *et al.* 2011) or to the fact that, unusually for this part of the UK, Guillemot chicks on Lundy are fed on sandeels *Ammodytes* rather than clupeids (Anderson *et al.* 2013).

One curious anomaly concerns counts of Guillemots on Skokholm, which lies 4 km south of Skomer. Barrett (1959) stated that in 1928 there were 160 pairs (sic), 220 in 1937, 'about 110 in 1947' and 'perhaps only 50 pairs since 1955'. The estimates from the 1920s and 1930s are presumably from Lockley, who then lived on Skokholm. While they show a decrease, as on Skomer after the Second World War, the numbers from 1928 seem disproportionately low compared with those on Skomer and Elegug Stacks at that time, and much lower than the 3,600 individuals recorded in 2015 (Skokholm Seabird report for 2015). It is possible that in the late 1920s and 1930s the main population was on Skomer, and Skokholm was a 'subsidiary' colony.

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References

Anderson, H., Evans, P., Potts, J., Harris, M., & Wanless, S. 2013. The diet of Common Guillemot (*Uria aalge*) chicks at colonies in the UK, 2006–2011: evidence for changing prey communities in the North Sea. *Ibis* 156: 23–34.

Barrett, J. H. 1959. Birds of the parish of Dale, including Skokholm. *Field Studies* 1: 1–16.

Birkhead, T. R. 1977. The effects of habitat and density on breeding success in the Common Guillemot *Uria aalge*. *J. Anim. Ecol.* 46: 751–764.

— 1978. Attendance patterns of Guillemots *Uria aalge* at breeding colonies on Skomer. *Ibis* 120: 219–229.

— 2012. Forty years of solitude. *Birdwatching Magazine*, October: 29–32.

— & Ashcroft, R. E. 1975. Auk numbers on Skomer Island. *Nature in Wales* 14: 223–233.

Bourne, W. R. P. 1968. Oil pollution and bird populations. *Field Studies* (Suppl. 2): 100–218.

— 1970. Oil pollution and bird conservation. *Biol. Cons.* 2: 300–302.
Brown, A., Price, D., Slader, P., Booker, H., Lock, L., & Deveney, D. 2011. Seabirds on Lundy: their current status, recent history and prospects for the restoration of a once-important bird area. *Brit. Birds* 104: 139–158.
Buxton, J., & Lockley, R. M. 1950. *Island of Skomer.* Staples, London.
Cramp, S., Bourne, W. R. P., & Saunders, D. 1974. *The Seabirds of Britain and Ireland.* Collins, London.
Fisher, J., & Lockley, R. M. 1954. *Seabirds.* Collins, London.
Foster, S., & Marrs, S. 2012. Seabirds in Scotland. Scottish Natural Heritage Trend Note 021: 1–17. www.snh.gov.uk/docs/B1163280.pdf
Hatchwell, B. J., & Birkhead, T. R. 1991. Population dynamics of Common Guillemots *Uria aalge* on Skomer Island, Wales. *Ornis Scandinavica* 22: 55–59.
Hentati-Sundberg, J., & Olsson, O. 2016. Amateur photographs reveal population history of a colonial seabird. *Current Biology* 26: R219–R228.
Larn, R., & Larn, B. 1995. *Shipwreck Index of the British Isles.* Vols. 1, 2 & 5. Lloyd's Register of Shipping, 1995–ongoing, London.
Lockley, A. 2013. *Island Child.* Gwasg Carreg Gwalch, Conwy.
Lockley, R. M. 1958. Seabirds and their protection. *Bird Notes* 28: 380–383.
Meade, J., Hatchwell, B. J., Blanchard, J. L., & Birkhead, T. R. 2013. The population increase of Common Guillemots *Uria aalge* on Skomer Island is explained by intrinsic demographic properties. *J. Avian Biol.* 44: 55–61.
Perry, R. 1940. *Lundy: Isle of Puffins.* Lindsay Drummond, London.
Skokholm Seabird Report 2015. http://welshwildlife.org/wp-content/uploads/2016/01/Skokholm-Seabird-Report-2015.pdf
Votier, S. C., Hatchwell, B. J., Mears, M., & Birkhead, T. R. 2009. Changes in the timing of egg-laying of a colonial seabird in relation to population size and environmental conditions. *Marine Ecology Progress Series* 392: 225–233.
—, —, Beckerman, A., McCleery, R. H., Hunter, F. M., Pellatt, J., Trinder, M., & Birkhead, T. R. 2005. Oil pollution and climate have wide-scale impacts on seabird demographies. *Ecology Letters* 8: 1157–1164. doi:10.1111/j.1461-0248.2005.00818.x
—, Birkhead, T. R., Oro, D., Trinder, M., Grantham, M. J., Clark, J. A., McCleery, R. H., & Hatchwell, B. J. 2008. Recruitment and survival of immature seabirds in relation to oil spills and climate variability. *J. Anim. Ecol.* 77: 974–983.
Walsh, P. M., Halley, D. J., Harris, M. P., del Nevo, A., Sim, I. M. W., & Tasker, M. L. 1995. *Seabird Monitoring Handbook for Britain and Ireland.* JNCC, RSPB, ITE and Seabird Group, Peterborough.

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Tim Birkhead is professor of evolution and behaviour at the University of Sheffield. He has studied and written about birds for 40 years. His most recent book is *The Most Perfect Thing: inside (and outside) a bird's egg* (Bloomsbury, 2016).

Announcements

New county recorders

Recent changes include:
East Glamorgan Phil Bristow, e-mail phlbrstw@gmail.com
Essex Mick Tracey, e-mail micktrac@aol.com
Hertfordshire Alan Gardiner, e-mail birdrecorder@hnhs.org
Norfolk Neil Lawton, e-mail dnjnorfolkrec@btinternet.com

As always, a full list is maintained on the *BB* website (www.britishbirds.co.uk/birding-resources/county-recorders-2). If you notice any changes that have been missed, please e-mail editor@britishbirds.co.uk and we will update the list.

Corrections

In the 'Report on rare birds in Great Britain in 2015' (*Brit. Birds* 109: 566–631), the sketches of the Shetland Thick-billed Warbler *Iduna aedon* on p. 609 were attributed to Pete Aley in error; they were in fact made by co-finder Steve Young. On p. 613, the spring records of Swainson's Thrush *Catharus ustulatus* in 2015 were, in fact, pre-dated by another spring record in Europe: the first for Ireland was picked up freshly dead at Blackrock Lighthouse, Co. Mayo, on 26th May 1956 (specimen held at the National Museum, Dublin).

In the review of *Flight Identification of Raptors of Europe, North Africa and the Middle East,* previous Western Palearctic records of Swallow-tailed Kite *Elanoides forficatus* are from Fuerteventura, Canary Islands, and the Azores (two), not from Iceland as stated.

Black-winged Stilts in Britain: past, present and future

Malcolm Ausden, Robert Dixon, Leigh Lock, Jason Moule, Julian Nash, Ben Newton, Mark Thomas, Graham White and Will Tofts

Richard Johnson

Black-winged Stilt *Himantopus himantopus* on a nest in Cambridgeshire

Abstract Since the mid 2000s, there has been an increase in numbers of, and breeding attempts by, Black-winged Stilts *Himantopus himantopus* in Britain. Influxes of Black-winged Stilts into Britain have usually followed dry conditions in southwest Europe in spring but, for a given level of drought in southwest Europe, more stilts are now reaching Britain. This change perhaps reflects the increasing numbers now breeding in northern France. Most breeding attempts by stilts in Britain have been on nature reserves and subject to protection measures, but overall breeding productivity has been low: between 1983 and 2016, only three of the 21 nesting attempts resulted in fledged young. We describe efforts to encourage successful breeding by Black-winged Stilts, and consider the future of this wader as a breeding species in Britain.

The Black-winged Stilt *Himantopus himantopus* is one of a large number of wetland birds identified as having the potential to establish, or re-establish, a regular breeding presence in Britain in the near future (Ausden *et al.* 2014, 2015a). In this paper, we describe changes in the status of Black-winged Stilts in Britain, their habitat use and breeding productivity, and consider the future of the species as a breeding bird in Britain.

Changes in the status of Black-winged Stilts in Britain

Numbers of Black-winged Stilts recorded in Britain can vary greatly from year to year, but there has been a marked increase in both overall numbers and breeding attempts since the mid 2000s (figs. 1 & 2). There has also been a corresponding increase in the number of stilts breeding in the Netherlands in the same period (fig. 3).

It is now well established that more stilts are recorded in Britain, and more breed in the Netherlands, following dry winters in southwest Europe (Figuerola 2007; Boele 2012). Stilts are highly dispersive and, when wetlands in their breeding areas in southwest Europe are dry in spring, they move elsewhere in search of alternative breeding sites. We repeated the analysis of Figuerola (2007), who compared numbers of Black-winged Stilts in Britain with the mean North Atlantic Oscillation (NAO) Index for the preceding winter, but with more recent data (fig. 4). The NAO is a measure of the difference in air pressure between Lisbon (Portugal) and Reykjavik (Iceland). When the NAO has a high, positive value, pressure over the Iberian Peninsula has been high, and the weather there drier than average. When the NAO has a large, negative value, pressure over southwest Europe has been low and the weather generally wetter than average. Our analysis shows that, of the five influxes of stilts since 2000, four of these (in 2008, 2012, 2014 and 2015) have occurred following dry winters in southwest Europe, corresponding to a high, positive mean winter NAO.

Since the mid 2000s, however, more stilts have tended to arrive in Britain for a given level of drought in southwest Europe (see blue data points in fig. 4); and, since the mid to late 1990s, the overall pattern of records in Britain has shown a more easterly distribution (fig. 5). The latter finding might be partly due to an increase in the number of nature reserves with suitable habitat for stilts in southeast England. Many such wetlands have been created only recently – for example, the RSPB reserves at Medmerry (Sussex), Frampton Marsh (Lincolnshire) and the South Essex Reserves – or been modified recently in ways that have made them more suitable for stilts – such as Cliffe Pools and Dungeness, in Kent, again both RSPB reserves.

The recent increase in numbers and change in distribution might also reflect a shift in the origins of the stilts arriving in Britain. An increase in numbers for a given level of drought in southwest Europe may partly reflect growth of the stilt population in Spain. The population trend of stilts in Spain has increased markedly since the mid 1990s, although with large annual fluctuations in numbers (www.seo.org/RESULTADOS-SEGUIMIENTO-DE-AVES-/?PRO=SP). A more likely explanation for the overall increase in Britain, and the shift in distribution, is the arrival of more stilts from their

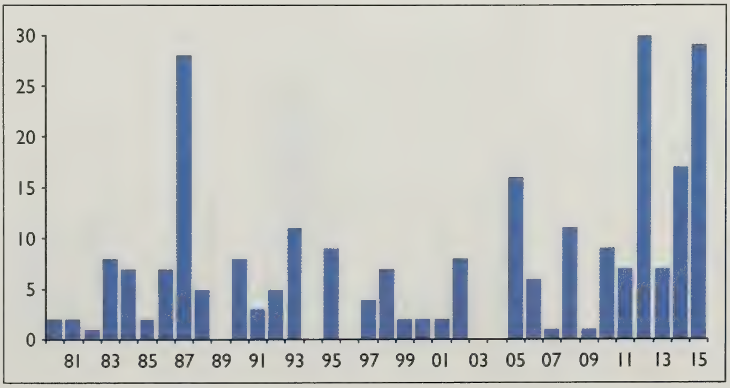


Fig. 1. Accepted records of Black-winged Stilts *Himantopus himantopus* in Britain in spring (before 1st July), 1980–2015. Data are from BBRC reports covering this period.

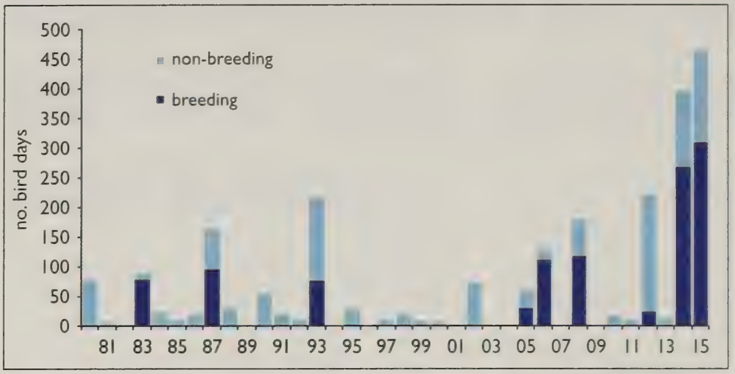


Fig. 2. Number of Black-winged Stilt *Himantopus himantopus* 'bird days' in Britain in spring (before 1st July), 1980–2015. Figures exclude young hatched in Britain. Data are from BBRC and RBBP reports covering this period.

nearest regular breeding populations in northern France. Numbers of stilts breeding in northern France are thought to be increasing, apparently due to high breeding success rather than influxes of birds from southwest Europe. In 2015, for example, there were 25 breeding pairs at the Réserve de Grand-Laviers in Picardie (fig. 6), and 53 breeding pairs at the Marais de Balançon in Nord-Pas de Calais, both only a short distance across the English Channel from Kent.

Arrival and nesting dates, habitat use and breeding success

Most Black-winged Stilts arrive in Britain between early April and early June, the peak period being the first half of May (fig. 7). We investigated habitat use by stilts in Britain by collating all accepted records between 1980 and 2015, and categorising the types of waterbodies found at each of these sites. We then calculated the total number of 'bird days' that stilts spent at these sites, and noted whether sites were: a) nature reserves managed by conservation charities (the RSPB, the Wildlife Trusts and the National Trust) or by private individuals, and b) Sites of Special Scientific Interest (SSSIs).

Stilts have been recorded at a wide range of waterbodies in Britain, but natural and semi-natural freshwater pools and brackish lagoons are the most frequently used (table 1). To understand habitat preferences, it is important to consider the use of different habitats in relation to the relative abundance of those habitats. There is insufficient habitat information available for such an analysis in Britain, but since brackish waterbodies are much rarer than fresh water in Britain, the fact that 31% of stilt 'bird days' were at brackish sites suggests that stilts strongly preferred these over fresh water (although it could also, in part, be due to more stilts occurring in coastal areas).

Another measure of habitat preference is duration of stay (table 1). The maximum recorded length of stay during 14 visits to reservoirs between 1980 and 2014 was just two days but stilts tended to remain much longer at natural/semi-natural freshwater lakes and brackish lagoons. Another feature of habitat use by stilts in Britain is that they occurred mainly at protected areas. Between 1980 and 2014, 84% of bird days were on nature reserves or SSSIs (table 2). Nature reserves have been even more important for breeding, as described later.

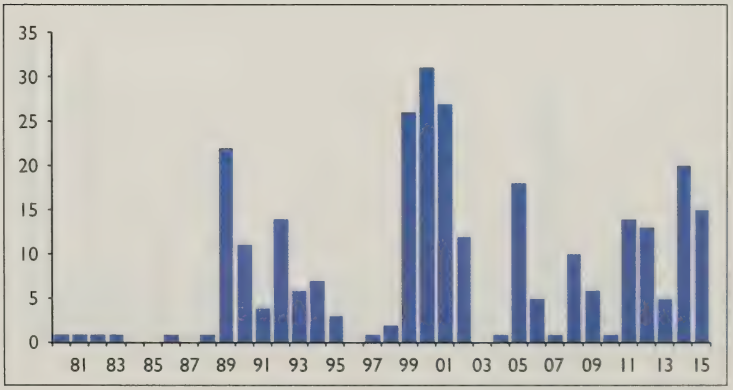


Fig. 3. Number of breeding pairs of Black-winged Stilts *Himantopus himantopus* in the Netherlands, 1980–2015. Data from SOVON (www.sovon.nl/nl/soort/4550).

In southern Europe,

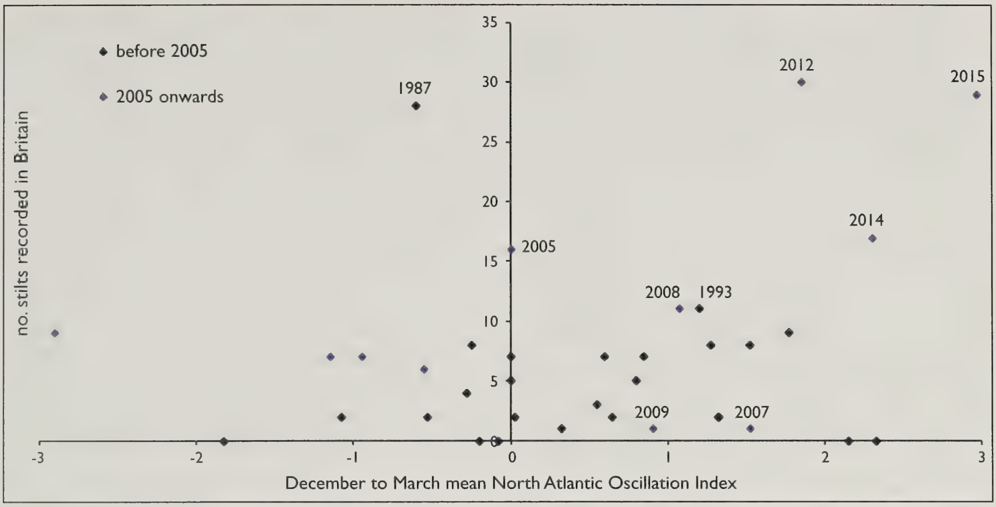


Fig. 4. The relationship between numbers of Black-winged Stilts *Himantopus himantopus* recorded in Britain in spring (before 1st July) and the mean December to February North Atlantic Oscillation Index. NAO Index data from the Climate Analysis Section, NCAR, Boulder, USA: https://climatedataguide.ucar.edu/climate-data/hurrell-north-atlantic-oscillation-nao-index-station-based. A positive NAO value relates to high pressure over southwest Europe and a dry winter there, a negative NAO value indicates low pressure over southwest Europe and a wetter than average winter.

Table 1. Habitat use by Black-winged Stilts *Himantopus himantopus* in Britain in spring and summer. Data are for all accepted records of Black-winged Stilts in Britain, 1980–2015, but omit individuals arriving at sites after 1st July. This excludes data for the individual that remained at Titchwell RSPB, in Norfolk, for nearly 12 years. The mean length of stay is included only for those habitats which had five or more records of stilts during the period.

habitat	% 'bird days'	mean length of recorded stay (days)	
		all	excl. breeding birds
Fresh water			
Reservoirs	0.6	1.1	–
Gravel-, sand- and clay-pits	5.7	3.3	–
Natural/semi-natural lakes and lagoons	22.4	7.6	4.6
Waterbodies on lowland wet grassland*	6.0	2.8	–
Flooded arable land	3.3	–	–
Scrapes**	5.9		
Sludge lagoons	4.8	–	–
Sewage-farms	0.3	–	–
Unknown fresh water	5.5	–	–
TOTAL	54.5		
Brackish			
Lagoons	20.8	18.5	3.9
Scrapes**	3.8	2.1	–
Flood storage areas	6.5	–	–
TOTAL	31.1		
Intertidal habitat	2.4	3.3	–
Mixtures of brackish and intertidal	2.0	–	–
Unknown wetland	10.1	–	–

* Mainly temporary pools remaining from winter flooding, and includes washlands

** Shallow waterbodies where water levels are controlled to benefit birds

In some cases, it was not possible to determine the type of waterbody at which stilts were recorded, based on the location given in the accepted record. If this locality was inland, then the record was classified as 'unknown fresh water'. If the locality was in a coastal area, then the record was classified as 'unknown wetland'. Hence, the inability to identify the type of waterbody used will have underestimated the use of brackish waterbodies and intertidal habitat to a greater extent than it would have underestimated the use of freshwater bodies.

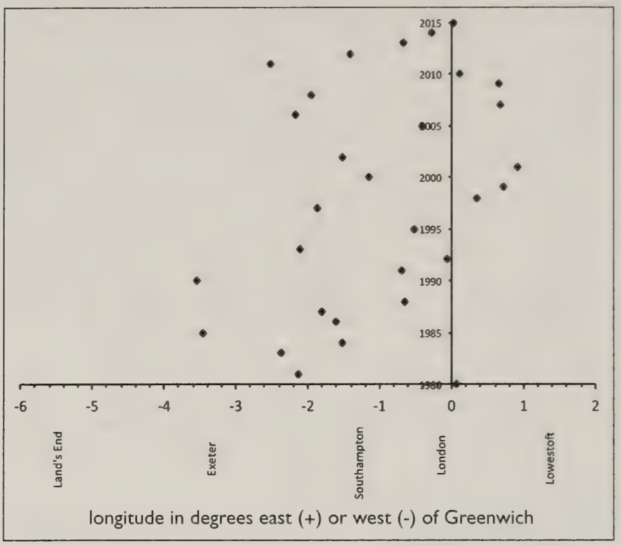


Fig. 5. Mean longitude of records of Black-winged Stilts *Himantopus himantopus* in Britain in spring (before 1st July), 1980–2015. This shows how the overall distribution of spring sightings has shifted eastwards over this period.

stilts breed at a range of wetlands, including artificial, shallow, temporary waterbodies, both fresh and brackish (rice fields, salinas, irrigation ponds, and settling ponds at sugar factories), and at more natural wetlands, again both fresh and brackish, and mainly temporary (e.g. Tinarelli 1991, Alexander *et al.* 2011, Toral & Figuerola 2012). Of the 21 known nesting attempts by stilts in Britain between 1983 and 2016, nine have been at shallow, temporary or fluctuating freshwater sites; one at a freshwater gravel-pit; one at a new, shallow, brackish lagoon; one at a shallow, permanent, brackish lagoon; and nine at complexes of both permanent and temporary brackish waterbodies (see Appendix 1). All but two of these nesting attempts (excluding the successful breeding in Suffolk in 2014, where the exact breeding site is not known) have been on nature reserves managed by conservation organisations or private landowners. The two exceptions were at Nottinghamshire Sewage Farm in 1945 and at Curry Moor in Somerset in 2012, although the latter is an SSSI. The importance of nature reserves for stilts must reflect the relative lack of suitably managed, undisturbed, shallow-water habitat in the wider countryside.

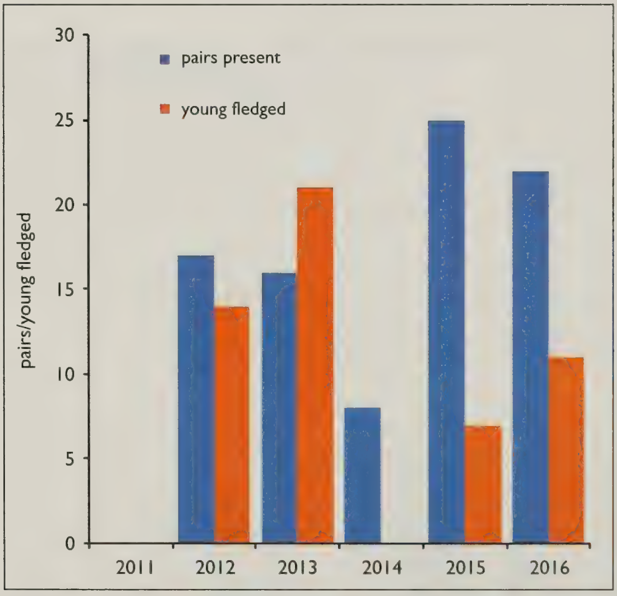


Fig. 6. Numbers of breeding pairs of Black-winged Stilts *Himantopus himantopus* and young fledged at the Réserve de Grand-Laviers in Picardie, northern France – the nearest regular breeding site to Britain which is regularly monitored. Black-winged Stilts are thought to have first bred successfully at these former sugar-beet lagoons in 2012, following creation of nesting islands the previous year, although some stilts had already bred on nearby marshes.

In southern Europe, Black-winged Stilts nest commonly with colonies of Avocets *Recurvirostra avosetta* (e.g. Cuervo 2004). However, although there have been three nesting attempts among Avocets at Cliffe Pools (see below), it is notable that they have otherwise not nested at large Avocet colonies elsewhere in Britain, such as those at Minsmere in Suffolk, or Cley Marshes and Titchwell, in Norfolk.

Virtually all nesting attempts by stilts in Britain have been in May (fig. 8) with the earliest date of the start of incubation being 1st May (at Cliffe Pools in 2016), and the latest on about 25th June (at Methwold Hythe, Norfolk, in 2015). These timings are, unsurprisingly, somewhat later than in semi-natural marshes in southern Europe. Stilts can, however, have a protracted breeding season and in rice fields in Doñana, in southern Spain, nesting begins in June, soon after the rice fields are flooded. It is not known whether nests in rice fields are mainly first clutches or subsequent attempts following the failure of nests in semi-natural marshes.

Stilts feed on a variety of invertebrates, picked from the water, mud and vegetation (e.g. Cramp & Simmons 1983). In Britain, almost the entire biomass of invertebrates in temporary waterbodies is typically non-biting midge larvae (Chironomidae), and these must presumably be an important food source for stilts. Both temporary and permanent pools in Britain develop a high biomass of Chironomidae only after mid May, several weeks after adult midges have emerged and laid eggs, and the timing of breeding by stilts in Britain allows them to exploit this abundant food supply.

Table 2. Use of protected areas by Black-winged Stilts *Himantopus himantopus* in Britain in spring and summer, 1980–2015. Data for 'bird days' are as described in the text and table 1. See text for definitions of land status.

land status	% 'bird days'
SSSI and nature reserve	50
Nature reserve only	27
SSSI only	7
Neither SSSI nor nature reserve	11
Status unknown	6

Of the 21 nesting attempts by 17 nesting pairs between 1983 and 2016 at which eggs are known to have been laid (i.e. excluding an attempt in Suffolk in 2005, when it was not clear whether eggs were laid), 13 have failed during incubation. Nest failure in several cases has been due to predation by: Magpies *Pica pica* and a Common Coot *Fulica atra* (1); Carrion Crow *Corvus corone* (1); possibly a Grey Heron *Ardea cinerea* (1); Red Fox *Vulpes vulpes* (1); and unknown predators, though with Foxes strongly suspected in four cases (6). Other causes of desertion were probably weather-related (1); removal of eggs by a stilt (1); and failure of the eggs to hatch (1). Changes in water levels are thought to have contributed to nest failure on two occasions: falling water levels exposing a nest to ground predators, and rising water levels resulting in a nest being left unguarded. Nesting stilts are also vulnerable to egg-collectors but during 1983–2016 protection has apparently prevented any theft of stilt eggs in Britain.

Nest survival in Britain during 1983–2016 has been 38%, which compares with 59% in

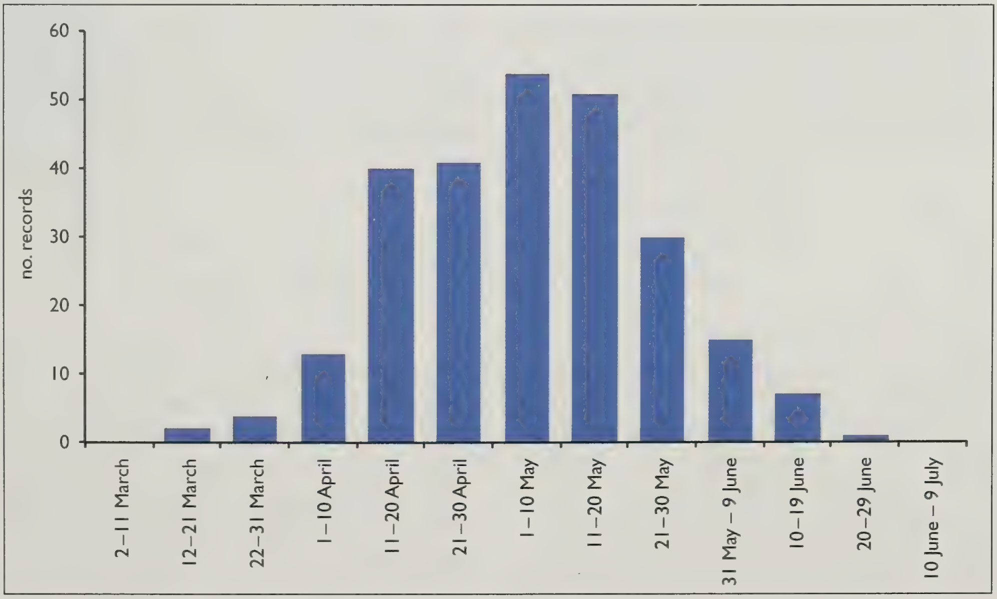


Fig. 7. Arrival dates of spring Black-winged Stilts *Himantopus himantopus* in Britain, 1980–2015.

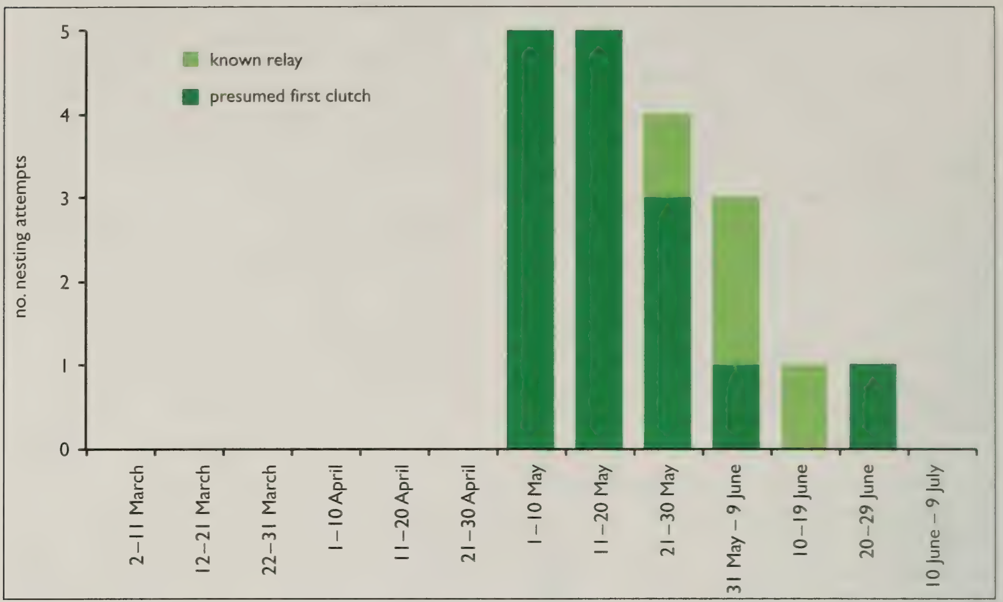


Fig. 8. Dates of first incubation of breeding Black-winged Stilts *Himantopus himantopus* in Britain, 1980–2015.

Doñana & Odiel Natural Parks in Spain, and 50% in rice fields near Doñana (Cuervo 2005; Toral & Figuerola 2012). In southern Europe, the commonest reported causes of nest failure are predation by rats and Yellow-legged Gulls *Larus michahellis*, and inundation of nests following heavy rain or rising water levels in rice fields, salinas and settling ponds. Nesting stilts can also be displaced by Yellow-legged Gulls (Tinarelli 1991; Arroya & Rodríguez-Pascual 2003; Cuervo 2004).

Between 1983 and 2016, 24 eggs have hatched successfully in Britain, and nine of the 24 chicks fledged. Three chicks were known (and two more strongly suspected) to have been predated by Black-headed Gulls *Chroicocephalus ridibundus*, all at Cliffe Pools in 2015. Five other losses are also assumed to have been due to predation. In some cases, bad weather may have increased the vulnerability of chicks to predation, or have been the direct cause of mortality: two chicks are assumed to have died after being chilled in heavy rain.

The overall breeding success of 0.53 chicks fledged per nesting pair (nine chicks from 17 pairs) in Britain compares with mean productivity of ≥0.50 young fledged per pair in the Delta region of the Netherlands during 1979–98 (data from 50 nesting attempts; Meininger *et al.* 1999), and 0.60 young fledged per breeding pair at the Réserve de Grand-Laviers in northern France in 2012–16 (data from 69 breeding pairs; Justine Lieubray pers. comm.). Breeding success near the northern edge of the current breeding range in Europe can be high in some years, though. For example, in the Netherlands, during the exceptionally warm spring and summer of 2015, ten nesting pairs fledged an impressive 26 young.

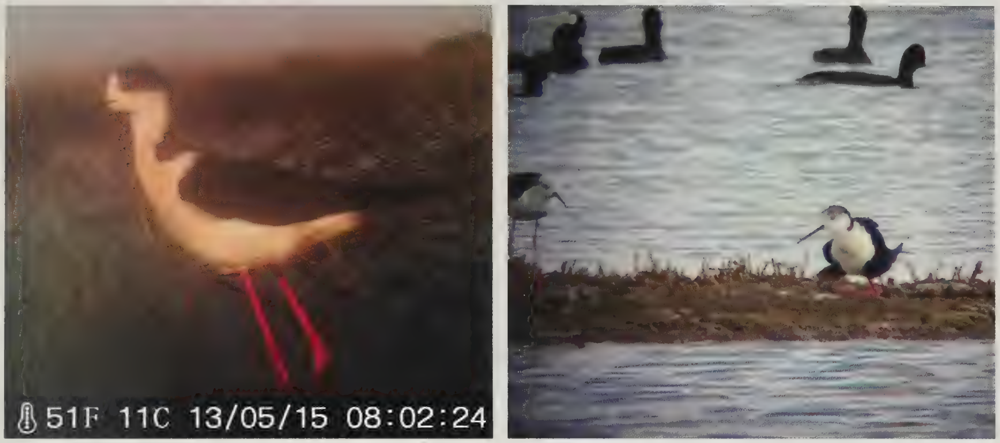
We do not know how many young stilts need to fledge in order to maintain a stable population. Northern Lapwings *Vanellus vanellus*, which are roughly similar in size, need to fledge around 0.6–0.8 young per pair each year to maintain a stable population (MacDonald & Bolton 2008). The current breeding productivity of stilts in Britain is undoubtedly too low to drive a population increase in Britain, in the absence of the continued arrival of new birds.

Breeding attempts by Black-winged Stilts in Britain in 2014–16

Intervention to assist breeding Black-winged Stilts in Britain took place during 2014–16. This illustrates the challenges that stilts face in trying to establish a regular breeding population.

2014 This was a particularly good year for

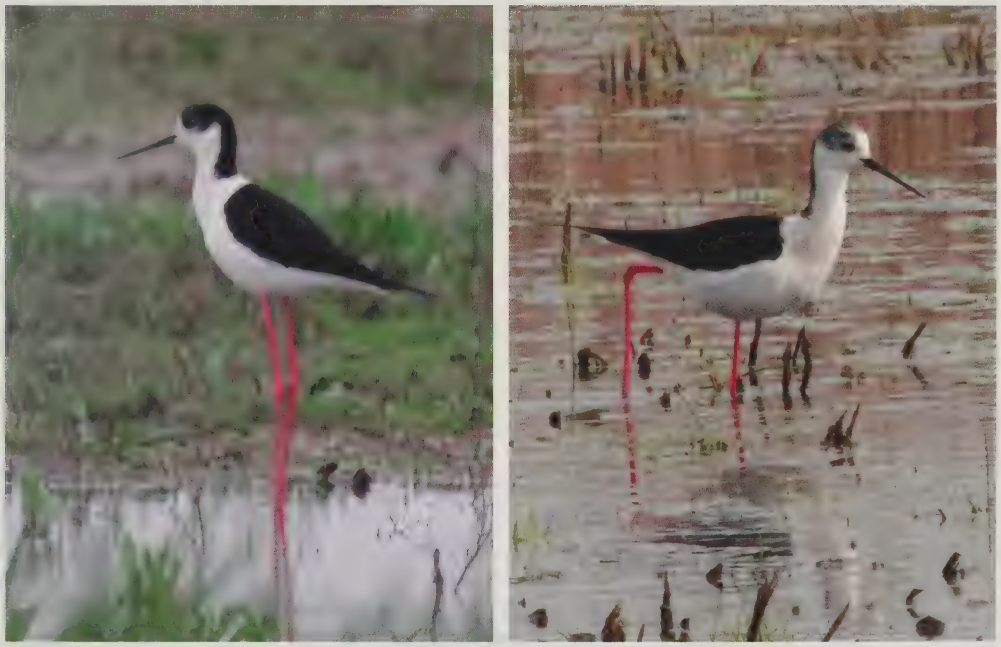
a. Male of first nesting pair in 2015 b. Male of second nesting pair in 2015



RSPB

Jason Moule

c. Male of first nesting pair in 2016 d. Male of third nesting pair in 2016



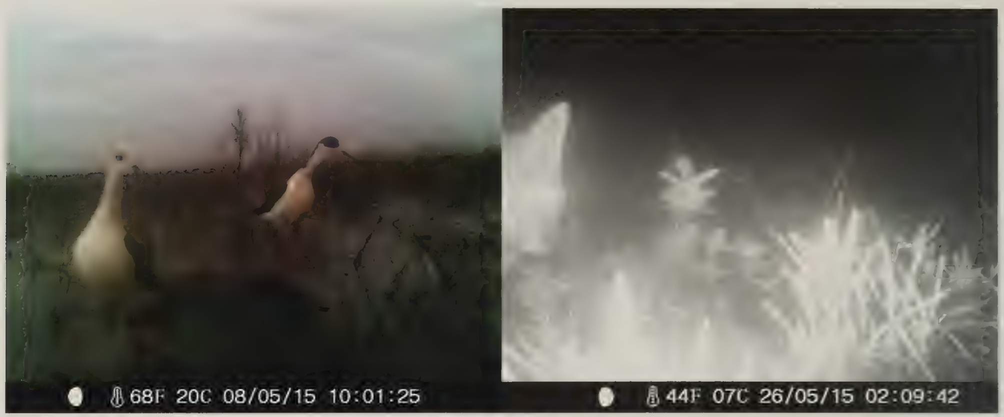
Rob Bugden

Dave Munns

Fig. 9. Male Black-winged Stilts *Himantopus himantopus* nesting at Cliffe Pools RSPB, Kent, in 2015 and 2016. Based on plumage characteristics, it is assumed that the males of two of the nesting pairs in 2016 were the same individuals that nested at Cliffe in 2015. The slight differences in markings on their head and neck between years are assumed to be due to differences in the rate of loss of dark feathering which takes place during the breeding season (van Boekel 2012).

breeding stilts in Britain, with seven young fledged from two of the nesting pairs. A pair at Medmerry built their nest just above the waterline, on the outer edge of a recently created flood storage area. They avoided the nearby islands within the flood storage area, which had been created for birds to nest on, and on which Avocets were already breeding. The choice of nest location meant that the stilts' nest was vulnerable, both to flooding if water levels rose in the flood storage area and to predation by Foxes. A temporary anti-predator fence was installed around the nest and 24-hour security was introduced. The pair went on to fledge three young; a full account was given by Hughes (2015).

Also in 2014, a pair at Fen Drayton Lakes RSPB Reserve in Cambridgeshire laid an egg on 19th May, which was apparently predated the following day. Later in the year, what may



RSPB

356. Nest-camera photographs of one of the pairs of nesting Black-winged Stilts *Himantopus himantopus* at Cliffe Pools RSPB, Kent, in 2015, including a photograph of the Red Fox *Vulpes vulpes* that predated their nest.

have been the same pair was discovered with four recently fledged chicks at Cavenham Heath gravel-pits on 19th July (Jakes & Wright 2015). Although the chicks were widely considered to be recently fledged when first discovered, the actual breeding site is unknown.

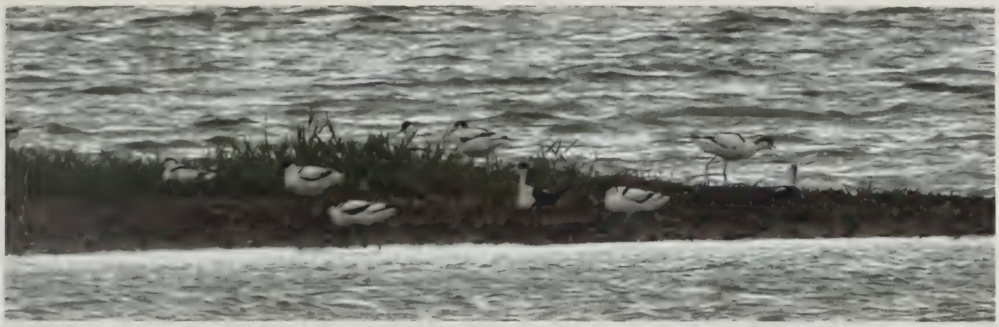
Finally in 2014, a pair nested at Cliffe Pools, among Avocets on an island in a large, deep, brackish lagoon. The island was some way from the shore, and the nest site was thus fairly safe from predation by Foxes and Badgers *Meles meles*. Even so, in addition to installing 24-hour security, Foxes in the surrounding area were controlled, to minimise the risk of predation if the adult stilts took their chicks off the island. Four eggs hatched successfully; unfortunately, the nest island provided little cover for the chicks and little shallow water where they could feed. The adults remained on the island but had lost all of their chicks by the fifth day after first hatching. The events the following year (see below) suggest that the chicks were most likely predated by Black-headed Gulls from a nearby colony.

2015 Following the events of 2014, when an arrival of stilts in mid April led to the breeding attempts described above, measures were identified that could be put in place if more breeding attempts were made. Funding to employ a staff member to coordinate and implement these measures was identified. Some 13 of 25 sites at which stilts had been recorded in 2014 were RSPB reserves, and reserve staff were asked to provide early notification if stilts were reported, together with any signs of breeding activity.

Following another mid-April influx, there was a two-week period during which Black-winged Stilts, mainly in pairs, were recorded at nine or more sites in England. Most were at RSPB reserves in the Inner Thames Estuary, with pairs and individuals apparently regularly moving between reserves in north Kent and southern Essex. On 27th April, three stilts were back at Cliffe; four days later, the birds' behaviour suggested that a pair was nesting, but in an area that was difficult to view without disturbance. That same day, some people were spotted on the reserve in a canoe; they subsequently landed (with at least one dog), close to the site which the stilts had occupied. The reserve team dealt with the canoeists, and organised 24-hour security.

On 7th May, a nest was located in shallow water amongst Sea Club-rush *Bolboschoenus maritimus*. The following day, a second nest was found, about 20 m from the first, also in shallow water amongst Sea Club-rush. Both nests were easily accessible to Foxes and Badgers; nest protection using electric anti-predator fencing was considered, but the surrounding water and tall vegetation made this impractical. Fox control measures were put in place and a pump was installed, to lower water levels in the lagoon in case of heavy rain.

The second nest failed sometime between 20th and 22nd May. Five days later, just before



357. Two incubating Black-winged Stilts *Himantopus himantopus* that renested amongst Avocets *Recurvirostra avosetta* on an island in one of the deep lagoons at Cliffe Pools RSPB, Kent, in 2015.

the eggs in the first nest were due to hatch, they were taken at night by a Fox (as revealed by a nest camera). At about the same time, a third nesting attempt elsewhere (at a site in Cambridgeshire) also failed at the egg stage.

By early June, the same two pairs (a judgement based on plumage characteristics) were renesting at Cliffe. The replacement nests were a few metres apart and located among nesting Avocets on an island far from shore in a large, deep, brackish lagoon – and within 400 m of where stilts had nested in 2014. Although these nests were fairly safe from predation by Foxes and Badgers, they were within 100 m of a large Black-headed Gull colony.

Two chicks from the first replacement nest were seen on 21st June, with a third chick on 22nd. As in 2014, the nest island had little suitable feeding habitat or cover for chicks. Many of the Avocets nesting on this island swam their chicks to better feeding areas. Avocet and stilt chicks differ in their predator-avoidance behaviour, and this might affect their relative vulnerability to gull predation. When chased, Avocet chicks typically take to the water and dive, whereas stilt chicks typically remain on, or head for, land and run. The stilts stayed on the nest island but by mid morning on 23rd June only one chick remained, and it is assumed that the first two chicks had been predated by Black-headed Gulls. In the afternoon of 23rd, the adults finally tried to swim the remaining chick off the island, but it was quickly picked off the water by a Black-headed Gull.

Prospects for the second pair of stilts now seemed less than good. We considered trying to transfer chicks to the shoreline of the lagoon, where the feeding habitat was better and there was more vegetation for chicks to hide in. This option presented inherent risks: landing a boat on the island would probably cause chaos among the nesting Avocets, making it difficult

358. Breeding habitat of Black-winged Stilts *Himantopus himantopus* at Cliffe Pools RSPB, Kent, in April 2016, with electric, anti-predator fence in the foreground.

Rob Bugden

359. Male Black-winged Stilt *Himantopus himantopus* in breeding habitat at Cliffe Pools RSPB, Kent, June 2016.

to catch the stilt chicks safely, while there was also a danger that the adult stilts might not find their relocated chicks.

The first egg from the second replacement nest hatched on 26th June, and the chick was predated by a Black-headed Gull the following day. A second egg hatched on 28th June, and if there had been a third egg it had disappeared by that morning. Just over two hours after the second chick hatched came the most bizarre disturbance incident – a seaplane landed without permission on one of the lagoons, which flushed all the nesting adult birds. This included both of the stilts, which did not return to the island for about ten minutes. Later that day, the remaining chick was predated by a Black-headed Gull. Meanwhile, a nesting attempt in Norfolk also failed at the egg stage. So, despite our efforts, all nesting attempts by Black-winged Stilts in Britain in 2015 had failed.

The head and neck markings of individual Black-winged Stilts vary considerably, making it possible to identify certain individuals with a reasonable degree of confidence, although the black head patterning may gradually fade and disappear during the breeding season (Xeira 1987; van Boekel 2012). Using these markings as a guide, we think that the male of one of the two pairs that nested at Cliffe in 2015 may have been the same individual that nested there in 2014. Meanwhile, the male of the pair that nested in Cambridgeshire in 2015 appeared to be a different individual from the male of the pair that nested in Suffolk in 2014.

2016 Following the failures of 2015, plans to maximise the chances of successful breeding in future years were considered. Cliffe Pools was the obvious site to focus on, given that stilts had nested there in the two previous years. The priority was to encourage nesting stilts in a location that contained good chick-rearing habitat, and where we could also best protect nests from predation by Foxes and Badgers. We also wanted to avoid a situation where stilts nested on islands where there was a high risk of predation by Black-headed Gulls. Beginning in autumn 2015, management work to encourage stilts included cutting and grazing vegetation in a key pool to make it more attractive.

In early spring 2016, it was difficult to predict whether there might be an influx of stilts. Weather conditions in southern Spain had not been particularly dry during the preceding autumn and winter, yet northeast

360. A seven-day-old Black-winged Stilt *Himantopus himantopus* chick being watched over by one of its parents at Cliffe Pools RSPB, Kent, on 2nd June 2016. This chick is thought to have died from chilling during a period of torrential rain 11 days later.

Spain and southern France had been extremely dry. An anti-predator fence was installed around the key pool at Cliffe in hope rather than expectation, and water levels were lowered to provide conditions suitable for stilts.

Amazingly, just as the final touches to the anti-predator fencing were being put in place on 13th April, a female stilt appeared on the pool. A pair of stilts arrived on 17th and a fourth bird the following day. Two birds left on 19th April but three days later the remaining pair was joined by a further four stilts – a male and three females. Stilts had been recorded at only two other sites in Britain over this period (a single bird and a pair), and in both cases these probably involved individuals which then moved on to Cliffe. Photographs showed that the two males present, and which subsequently nested at Cliffe, had near-identical head and neck markings to the two males that had nested there in 2015 (fig. 9).

Following a delay during a period of cold weather, two pairs of stilts began nesting inside the fenced area, with a third pair nesting on a lagoon outside it. The fate of these three pairs, and of their subsequent renesting attempts, are summarised in Appendix 2. Ultimately, however, despite the success of the fencing in preventing nest predation, and of manipulating water levels to reduce numbers of Black-headed Gulls in the vicinity of the stilt chicks, none of the five breeding attempts in 2016 proved successful.

The three nesting attempts outside the fenced areas all failed at the egg stage: at least one almost certainly due to Fox predation, and one due to predation by Carrion Crows, just 2–3 days before the eggs were expected to hatch. One of the pairs in the fenced area failed because a stilt removed the eggs from the nest. The two eggs of the remaining pair in the fenced area hatched successfully, but both chicks died during separate periods of torrential rain.

Tipping the balance in favour of stilts

It is clear that Black-winged Stilts are trying to colonise Britain and while influxes of stilts have been driven by dry conditions in southwest Europe in spring, at least part of the most recent surge of records is also likely to have been driven by an increase in the nearest breeding populations, particularly those in northern France. It is also clear that some individual stilts are now returning to Britain in successive years, and that some are now renesting in Britain following the loss of their first clutch. Breeding attempts by stilts in Britain are no longer just one-off events, with no longer-term significance. As the global climate continues to warm, periods of drought in southwest Europe are expected to become more frequent and severe, while Britain's climate is expected to become increasingly suitable for species whose current breeding range lies farther south (Huntley *et al.* 2007; IPCC 2013). As demonstrated in 2016, though, any benefits to stilts of higher temperatures in Britain might be mitigated by an increase in the frequency of extreme rainfall events, which can chill small chicks. Given the changes in our climate, is the colonisation of Britain by Black-winged Stilts inevitable?

Despite the projected changes in climate, our view is that the Black-winged Stilt's establishment as a regular breeding species in Britain is by no means assured. In particular, there is very little suitable breeding habitat which is free from disturbance by people and dogs, and where predation levels are sufficiently low for stilts to fledge young. Key measures to increase the breeding success of pioneering pairs involve minimising nest predation, particularly by Foxes; preventing disturbance by humans, including birdwatchers and photographers; preventing the theft of eggs; and minimising rapid fluctuations in water levels at nesting sites. The issue with human disturbance is that it can distract stilts from defending their eggs and chicks against predators. An important measure to reduce the risk of predation is the deployment of electric anti-predator fences to help protect nests from Foxes and Badgers, and to protect chicks from Foxes; the latter requires a sufficient area to be fenced and for the chicks to remain within this fenced area. In the Netherlands, the main intervention used to benefit stilts is to protect their nests from trampling by livestock. This is less often an issue where stilts have nested in Britain. Egg-collecting is no longer considered a threat in the Netherlands.

The Black-winged Stilt is a particularly difficult species to organise protection for. Prospecting stilts often arrive at a site, mate, create a nest scrape and then move elsewhere. Equally, when they do nest, it can be within just a few days of arriving at a site. In the case of some potential colonists and recolonists, the interest of conservation organisations can wane after the first few breeding attempts, and funding for subsequent protection may then be harder to find, particularly if breeding success is poor and only small numbers of birds are returning. We believe that these interventions are currently necessary to enable the establishment of a regular breeding population in Britain which, if it grows, will ultimately become less dependent on such intensive measures.

To establish regular breeding we need to create more potential nesting habitat in the form of large complexes of temporary waterbodies. Not all of these will be suitable for breeding stilts in any given year – hence the need for a network of such wetlands. The management that provides optimal conditions for breeding stilts – with periodic drying and reflooding – will also benefit other scarce breeding birds in Britain, such as Garganey *Anas querquedula* and Black-necked Grebe *Podiceps nigricollis*, while lowering water levels periodically will also provide good habitat for passage waders and other waterbirds (see Ausden *et al.* 2015a). A range of other birds that have colonised Britain have first established breeding populations on nature reserves, and then expanded into areas beyond them (Hiley *et al.* 2013), although we expect that Black-winged Stilts in Britain will remain almost entirely dependent on nature reserves for suitable breeding habitat, even if their population here increases significantly.

The RSPB has been designing wetlands in eastern and southeast England in ways that should provide suitable habitat for breeding stilts. These regions are climatically the most suitable areas of Britain for stilts, and closest to the nearest breeding populations on the Continent. Such sites have been designed so that, periodically, lagoons can be dried out and then reflooded, to provide shallow water containing high densities of aquatic invertebrates, as well as concentrations of small fish in shallow water for egrets and Eurasian Spoonbills *Platalea leucorodia* (Ausden *et al.* 2015b). They include three ambitious projects already underway in the Greater Thames Estuary. At Cliffe Pools, an enhancement plan had been agreed, which involves creating large numbers of nesting islands and areas of shallow water in otherwise deep, brackish lagoons. At the RSPB's South Essex Reserves, on Canvey Island, a large-scale wetland recreation project has already created a number of shallow, freshwater lagoons. Also in Essex, at Wallasea Island Wild Coast, the requirements of breeding stilts and of potential recolonists have been taken into account in the design of its shallow, saline lagoons (Ausden *et al.* 2015b). At these and other sites, the aim is to reduce the impact of predation through habitat design, in part by creating large numbers of nesting islands, and installing anti-predator fencing.

By putting these measures in place, we hope that the Black-winged Stilt will become the next bird species to expand its range northwards and establish (or re-establish) regular breeding in Britain within the last 50 years, the other species being (with the date of first regular breeding in parentheses): Cetti's Warbler *Cettia cetti* (1973), Mediterranean Gull *Larus melanocephalus* (1976), Yellow-legged Gull *L. michahellis* (1995), Little Egret *Egretta garzetta* (1996), Eurasian Spoonbill (2010) and Great White Egret *Ardea alba* (2012).

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References

Abraham, E. J. 1994. *North West Region Bird Report 1993.* Birdline North West.

Alexander, K. L., Sebastián-González, E., Botella, F., & Sánchez-Zapata, J. A. 2011. Occupancy patterns of irrigation ponds by Black-winged Stilts *Himantopus himantopus. Ardeola* 58: 175–182.

Allen, R. 2007. Black-winged Stilts breeding at Martin Mere, 2006. *Lancashire Bird Report 2006*: 166–167.

Arroya, G. M., & Rodríguez-Pascual, F. H. 2003. Cigüeñuela Común *Himantopus himantopus*. In Martí, R., & del Moral, J. C. (eds.), *Atlas de las Aves Reproductoras de España*, pp. 240–241. Dirección General de Conservación de la Naturaleza-Sociedad Española de Ornitología, Madrid.

Ausden, M., Hirons, G., Lock, L., & White, G. 2014. Managing and re-creating wetlands in Britain for potential colonists. *Brit. Birds* 107: 726–755.

—, Bradbury, R., Brown, A., Eaton, M., Lock, L., & Pearce-Higgins, J. 2015a. Climate change and Britain's birdlife: what might we expect? *Brit. Wildlife* 26: 161–174.

—, Dixon, M., Fancy, R., Hirons, G., Kew, J., Mcloughlin, P., Scott, C., Sharpe, J., & Tyas, C. 2015b. Wallasea: a wetland designed for the future. *Brit. Wildlife* 26: 382–389.

Boele, A. 2012. Black-winged Stilt as a breeding bird in the Netherlands in 1990–2011. *Limosa* 85: 68–72.

Boyd, B. 1988. Black-winged Stilts breeding at Holme. *Norfolk Bird Report 1987*: 89–96.

Cramp, S., & Simmons, K. E. L. (eds.) 1983. *The Birds of the Western Palearctic*. Vol. 3. OUP, Oxford.

Cuervo, J. J. 2004. Nest-site selection and characteristics in a mixed-species colony of Avocets *Recurvirostra avosetta* and Black-winged Stilts *Himantopus himantopus. Bird Study* 51: 20–24.

— 2005. Hatching success in Avocet *Recurvirostra avosetta* and Black-winged Stilt *Himantopus himantopus. Bird Study* 52: 166–172.

Figuerola, J. 2007. Climate and dispersal: Black-winged Stilts disperse further in dry springs. PloS ONE 2(6): e539. **doi:10.1371/journal.pone.0000539**

Gibbs, B. D. (ed.) 2013. *Somerset Birds 2012*. Somerset Ornithological Society.

Gregory, J. 2009. Black-winged Stilts at Neumann's Flash. *Cheshire and Wirral Bird Report 2008*: 136–137.

Hiley, J. R., Bradbury, R. B., Holling, M., & Thomas, C. D. 2013. Protected Areas act as establishment centres for species colonising the United Kingdom. *Proc. Roy. Soc. Lond.* B 280: 20122310. **doi:10.1098/rspb.2012.2310**

Hughes, P. 2015. Black-winged Stilts at RSPB Medmerry 2014. *The Sussex Bird Report 2014*: 211–215.

Huntley, B., Green, R. E., Collingham, Y. C., & Willis, S. G. 2007. *A Climatic Atlas of European Breeding Birds*. Durham University, RSPB and Lynx Edicions, Barcelona.

IPCC (Intergovernmental Panel on Climate Change). 2013. Summary for policymakers. In: Stocker, T. F., Qin, D., Plattner, G-K., Tignor, M., Allen, S. K., Boschung, J., Nauels, A., Xia, Y., Bex, V., & Midgley, P. M. (eds.), *The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge and New York.

Jakes, C., & Wright, M. 2015. Black-winged Stilts breeding in west Suffolk. *Suffolk Bird Report 2014*: 31–32.

Lea, V., & Bircham, P. 2016. *Cambridgeshire Bird Report 2014*. Cambridgeshire Bird Club.

MacDonald, M. A., & Bolton, M. 2008. Predation on wader nests in Europe. *Ibis* 150 (Suppl. 1): 54–73.

Meininger, P. L., Berrevoets, C. M., & Strucker, R. C. W. 1999. *Kustbroedvogels in het Deltagebied: een terugblik op twintig jaar monitoring (1979–1998)*. Rapport 99.025, RIKZ, Middelburg.

Staton, J. 1945. The breeding of Black-winged Stilts in Nottinghamshire in 1945. *Brit. Birds* 38: 322–328.

Tinarelli, R. 1991. Habitat preference and breeding performance of the Black-winged Stilt *Himantopus himantopus* in Italy. *Wader Study Group Bulletin* 65: 58–62.

Toral, G. M., & Figuerola, J. 2012. Nest success of Black-winged Stilt *Himantopus himantopus* and Kentish Plover *Charadrius alexandrinus* in rice fields, southwest Spain. *Ardea* 100: 29–36.

van Boekel, W. 2012. Observations on a small breeding colony of Black-winged Stilts *Himantopus himantopus* in the northern Netherlands in 2011. *Limosa* 85: 60–67.

Xeira, A. 1987. The head pattern of Black-winged Stilts. *Wader Study Group Bulletin* 50: 29.

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Appendix 1. Breeding attempts by Black-winged Stilts *Himantopus himantopus* in Britain to 2015. Information from Rare Breeding Birds Panel reports and other sources as shown.

	site	habitat	no. pairs/ nesting attempts	no. fledged	notes
1945	Nottingham Sewage Farm, Nottinghamshire	Sewage farm	2–3 pairs	4	Three and one chicks fledged from two pairs, with eggs from an additional nest (from these two pairs or a third pair) taken by a child (Staton 1945).
1983	Nene Washes, Cambridgeshire	Arable field, with shallow flooding from previous winter	1 pair	0	The field dried out rapidly, despite attempts to pump water onto it, and the eggs were predated, probably by a Fox.
1987	Holme, Norfolk	Shallow, permanent brackish lagoon	1 pair	2	Three eggs hatched, two chicks fledged, one possibly predated by a Stoat *Mustela erminea* (Boyd 1988).
1993	Frodsham, Cheshire & Wirral	Shallow, freshwater lagoon for deposition of dredgings	1 pair	0	Eggs predated by Magpies and a Coot, following a period when the nest was frequently left unguarded after a rise in water levels (Abraham 1994).
2005	Orfordness, Suffolk	Brackish lagoon	1 pair	0	Empty nest scrape found after birds had departed; uncertain whether they laid any eggs.
2006	Martin Mere, Lancashire & N Merseyside	Shallow, freshwater scrape	1 pair	0	Four eggs laid, failed to hatch (Allen 2007).
2008	Neumann's Flash, Cheshire & Wirral	Shallow, freshwater pool, originally for disposal of lime waste	1 pair	0	Three eggs hatched, chicks disappeared – cause unknown (Gregory 2009).
2012	Curry Moor, Somerset	Shallow flooded grass field	1 pair	0	Four eggs laid, but nest soon deserted, following poor weather (Gibbs 2013).

Appendix 1. *continued*

	site	habitat	no. pairs/ nesting attempts	no. fledged	notes
2014	Fen Drayton RSPB, Cambridgeshire	Freshwater gravel-pit	1 pair	0	Single egg laid, assumed to have been predated the following day (Lea & Bircham 2016).
2014	Medmerry RSPB, Sussex	Shallow, brackish lagoon (constructed as a freshwater flood storage area), the first spring after completion.	1 pair	3	Three eggs hatched, three chicks fledged (Hughes 2015).
2014	Cliffe Pools RSPB, Kent	Complex of mainly deep, permanent brackish and shallow, temporary brackish lagoons	1 pair	0	Four eggs hatched, but all chicks disappeared soon afterwards, probably predated by Black-headed Gulls.
2014	Suffolk	Unknown	1 pair	4	Pair with four recently fledged chicks discovered at Cavenham Heath gravel-pits on 19th July (Jakes & Wright 2015).
2015	Cambridgeshire	Shallow, freshwater lagoon	1 pair	0	Eggs predated.
2015	Cliffe Pools RSPB, Kent	Complex of mainly deep, permanent brackish lagoons and shallow, temporary brackish lagoons	2 pairs (2 nesting attempts each)	0	Both first attempts failed at the egg stage, eggs from certainly one nest (and probably both) predated by a Fox. Both pairs relaid and hatched three and two chicks; none of these survived, with at least three (and possibly all) being predated by Black-headed Gulls, probably together with a remaining egg.
2015	Methwold Hythe, Norfolk	Freshwater scrape, part of complex of islands and reedbeds	1 pair	0	Nest predated, probably by a Grey Heron.

Appendix 2. Details of breeding attempts by Black-winged Stilts *Himantopus himantopus* in Britain in 2016.

Pair no. 1 This pair began incubating within the fenced area at Cliffe Pools on 1st May. Based on plumage, the male is assumed to be one of the males that nested at Cliffe in 2015. Dawn-to-dusk watches were organised as soon as this first pair began nesting, and the frequency of Fox control by a professional gamekeeper increased.

This pair diligently took turns to defend the nest against a wide range of other bird species. As the hatching date approached, the number of Black-headed Gulls feeding in the area of the stilt nest began to increase. The gulls were feeding on chironomid larvae, made more accessible by falling water levels, so we brought in a pump to raise water levels slightly. This successfully reduced numbers of Black-headed Gulls in the vicinity of the stilt nest, in the run-up to hatching.

The first egg hatched on 25th May, and a second two days later. The adults successfully defended the two chicks against potential avian threats before the effects of bad weather intervened. At three days old, the youngest and smallest chick succumbed during a period of torrential rain and cold winds.

The first chick continued to grow well, and became increasingly independent, frequently exercising its wings. However, on 13th June, about ten days from fledging, came another period of torrential rain, this time overnight. The next morning, there was no sign of the remaining chick, or of most of the small and medium-sized Avocet chicks at the site.

Pair no. 2 This pair began nesting within the fenced area at Cliffe Pools on 3rd May, but failed five days after the start of incubation, when a male stilt (it is unclear whether it was the male of the nesting pair or another bird) was seen removing and dumping the eggs from the nest.

This pair then relocated across the Thames to the RSPB's South Essex Reserves, and eventually settled to nest on an island in an RSPB-managed lagoon viewable from the Wat Tyler Country Park on 31st May. This scrape is close to a landfill site, and consequently surrounded by high densities of Foxes and large gulls. The reedbeds around the scrape meant it was impossible to install an anti-predator fence. We quickly arranged a wardening post to watch over the stilts, but the pair deserted the nest during the daytime, five days later. It was not possible to visit the abandoned nest, because of potential disturbance to other nesting birds. This was the first recorded nesting attempt in Essex.

Pair no. 3 This pair started nesting outside the fenced area at Cliffe Pools on 14th May. Based on plumage, the male is assumed to have been one of those that nested at Cliffe in 2015. Both pair members would chase off any potential avian predators, including even quite distant Marsh Harriers *Circus aeruginosus*, commuting back and forth over the site, and posing no obvious threat. Consequently, the eggs were frequently left unguarded. The pair lost their eggs on the night of 17th/18th May. There were no eggshell remains in the nest, and heavy rain would have destroyed any footprints in the mud surrounding the nest. However, a Fox was seen close to the predated nest the following day.

This pair subsequently reappeared in north Kent, where they were first seen at Higham Marshes RSPB Reserve on 7th or 8th June and, unexpectedly, began nesting there on 11th June. The nest was in an area where Fox control had been carried out, and where other waders had enjoyed a successful breeding season. We again organised watches of this pair. The incubation period proceeded uneventfully until, on 4th July, just two days before the first eggs were expected to hatch, all four eggs were predated by four Carrion Crows.

The Cackling Goose in Britain

Andy Stoddart

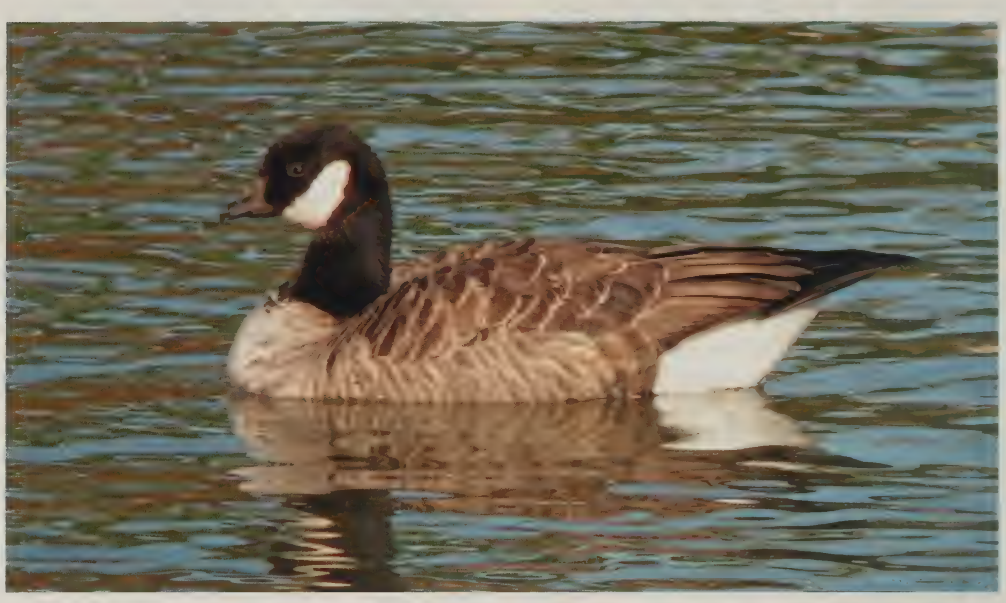
Abstract This paper charts the emerging history of vagrancy to Britain by the Cackling Goose *Branta hutchinsii*. It discusses the species' complex taxonomic history, summarises its currently understood identification criteria, documents the first acceptable British record and sets out BBRC's approach to assessment.

The occurrence of the Cackling Goose *Branta hutchinsii* in Britain has long been recognised. A bird on Islay, Argyll, on 5th April 1958 was documented in the very first BBRC annual report, albeit as a subspecies of Canada Goose *B. canadensis* (Pyman 1960). In *BWP*, Cramp & Simmons (1977) noted that 'In most recent winters, 1–10 apparently wild *B. canadensis* seen Ireland and west Scotland…', listing '*B. c. hutchinsii*' among those suspected of occurring. Since then Cackling Geese have turned up relatively regularly in Britain & Ireland, particularly among wintering Barnacle Geese *B. leucopsis* in western Scotland. Yet until recently, no post-1958 records were considered or published by BBRC. Some were presumably regarded as escapes while a lack of interest in subspecies also hindered progress. The true status of Cackling Goose in Britain has remained unclear and undocumented for over half a century, a position that began to change with the revision of Canada Goose taxonomy in the first decade of the 2000s.

Taxonomy

The Canada Geese (sometimes termed 'white-cheeked geese') have had a long and complex taxonomic history. Various taxonomic arrangements of the group have been proposed, involving up to four species, but the taxonomy of Delacour (1954) – comprising a single species with eleven extant subspecies – was adopted by most subsequent authors. In 2004, however, the American Ornithologists' Union (AOU) separated the large-bodied (more southerly breeding) and small-bodied (tundra-breeding) subspecies into Canada Goose *B. canadensis* (polytypic, with seven subspecies) and Cackling Goose *B. hutchinsii* (polytypic, with four subspecies), respectively. This split was adopted largely on the basis of the significant mtDNA differences between the two groupings but it also recognised morphometric distinctions (Banks *et al.* 2004). This treatment was subsequently adopted by BOU (Sangster *et al.* 2005), using the English names 'Greater Canada Goose' and 'Lesser Canada Goose'. However, the name 'Lesser Canada Goose' was (and still is) in widespread use for Canada Goose of the race *B. c. parvipes* and so *BB* and BBRC have, in line with most other authors, adopted the name 'Cackling Goose' for *B. hutchinsii*. Cackling Goose as now defined comprises the following subspecies:

- ***B. h. hutchinsii*** **('Richardson's Cackling Goose')**, breeds across Arctic Canada from the Northwest Territories east to Baffin Island, and occurs in small numbers in west Greenland, mainly between Disko Bay and Thule (Fox *et al.* 2012), and winters in the southern United States and northern Mexico.
- ***B. h. taverneri*** **('Taverner's Cackling Goose')**, breeds in coastal north and west Alaska and winters mainly in Oregon and Washington but also in northern California.
- ***B. h. minima*** **('Ridgway's Cackling Goose')**, breeds in the Yukon-Kuskokwim Delta, southwest Alaska, and winters mainly in



361. 'Richardson's Cackling Goose' *Branta h. hutchinsii*, Markham, Ontario, Canada, 10th October 2008. The compact shape, the short, thick neck and small bill of Cackling Goose are shown to good effect here. The rather square, angular head; the short, steep forehead; the flat crown highest at the rear; and the relatively pale breast (paler than the flanks and upperparts) are all typical of the nominate subspecies.

Oregon and Washington but also in central California.

B. h. leucopareia (**'Aleutian Cackling Goose'**), breeds in the Aleutian Islands, Alaska, and winters mainly in California but some also in Oregon.

The new taxonomy has highlighted a number of problems, however, notably the position of *B. h. taverneri* and *B. c. parvipes*, two taxa that are very similar in size and plumage but now fall either side of the species divide. Within North America, there is continuing debate over the appearance and range of these forms, with particular questions surrounding the identity of birds breeding from the Mackenzie River Delta (in Canada's Northwest Territories) to Alaska's North Slope (Mlodinow *et al.* 2008).

Further uncertainty surrounds the extent of hybridisation between Cackling Geese and Canada Geese. This is said to be infrequent (Mlodinow *et al.* 2008) but a narrow hybrid zone between *B. h. hutchinsii* and *B. c. interior* has recently been documented, in the area where their ranges meet, around the western shores of Hudson Bay (Leafloor *et al.* 2013). It is unclear at present whether this hybrid zone then extends to the west. The extent of intergradation (if any) between Cackling Goose subspecies, for example *B. h. taverneri* and *B. h. hutchinsii*, is also unclear.

Other taxonomic perspectives still remain. Shortly after the adoption of the two-species taxonomy described above, Harold C. Hanson (Hanson 2006, 2007) published two monumental volumes on the 'white-cheeked geese' in which he recognised as many as six species with no fewer than 217 subspecies! Three of these species correspond to what is now defined as Cackling Goose. A subsequent work by Bertin W. Anderson (Anderson 2010) recognised 15 species, with 181 subspecies. Six of Anderson's species correspond to the current Cackling Goose.

The findings of Hanson and Anderson have proved controversial but they clearly deserve further study, not least because they offer a potentially more 'fine-grained' approach to the identification of 'problem birds', which appear not to match the more widely accepted two-species approach. For example, some British vagrants have been tentatively linked with some of Hanson's proposed forms (Garner 2008). To date, however, the proposals of Hanson and Anderson have received little support in mainstream regional or global taxonomies.

The last word on 'white-cheeked geese' has clearly not yet been written, and the current taxonomy is perhaps best regarded as a 'holding position'. For the moment, however, it provides the framework within which observers and records committees must work.

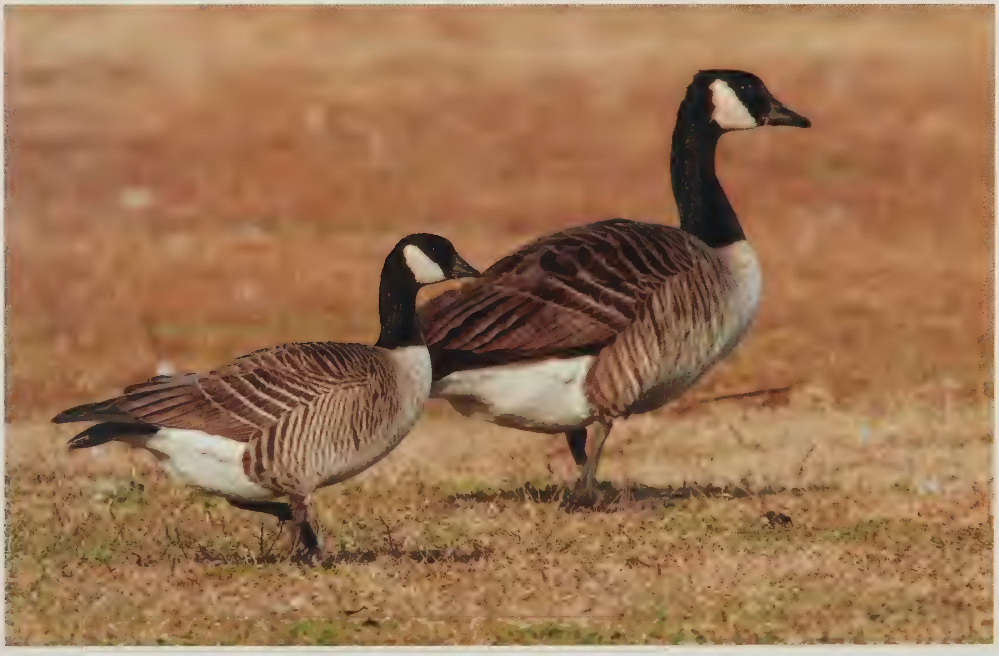
Identification

In the wake of the AOU split, Mlodinow *et al.* (2008) provided a comprehensive overview of the identification of Cackling Goose and also (because of the similarities in its appearance) *B. c. parvipes.*

At species level, separating most Cackling Geese from most Canada Geese is not too difficult. A bird accurately gauged to be the same size as, or smaller than, a Barnacle Goose or a Pink-footed Goose *Anser brachyrhynchus,* and with a short, deep bill, should prove to be a Cackling Goose. However, a slightly larger, 'medium-sized' goose could be *B. h. taverneri* but it could also be *B. c. parvipes.* It could also – particularly in a bird of captive or feral origin – be a hybrid Cackling × Canada Goose. In practice, it will not be possible to identify every putative Cackling Goose.

The field identification of Cackling Goose to a particular subspecies is more problematic. Particular attention should be paid to size and structure – chiefly neck length, head shape and bill length and shape – and preferably in direct comparison with other geese. However, apparent size and structure can vary dramatically with posture, activity and even distance, while all the taxa show some degree of sexual dimorphism as well as individual (often diet-related) size variation. Plumage is less helpful but it may be useful to note overall plumage hues (particularly on the breast), wing-covert pattern, shape of the cheek patch and the presence of any dark 'gular stripe' or white neck 'collar'.

There are, in fact, few definitive criteria for identifying any of the subspecies and Mlodinow *et al.* (2008) counsel considerable caution, even when other Cackling or Canada Geese are present for comparison. Tellingly, these authors note that 'a lone bird is far less likely to be identified with confidence, and identifications from photographs can be even more difficult, as snapshots often capture structure poorly. By our estimate (based on current knowledge), the chances for a solid identification of a lone photographed bird may be as low as 10–20%.'



Lloyd Spitalnik

362. 'Richardson's Cackling Goose' *Branta h. hutchinsii* with Canada Goose *B. canadensis*, Long Island, New York, USA, 8th January 2005. Note the truly small size of the Cackling Goose compared with its companion.

The BBRC review, and the first British record

By 2014 a large number of claims of Cackling Goose had been received by BBRC but making progress with their assessment was difficult, since the species was not yet on the British List. The Committee therefore reviewed the earliest documented records for which contemporary evidence was available of birds at 'suitable' locations and with potential carrier species. A number of these were accepted and passed to BOURC for consideration for admission to the British List. BBRC did not attempt to confirm the subspecies identification of any of these records, although the files highlighted any evidence that might have enabled BOURC to do so.

The 1958 Argyll bird was described in the 1960 Report as 'a small, dark, short-necked Canada Goose, distinctly smaller than the Barnacle Geese (*B. leucopsis*) it accompanied and clearly an example of one of the small races of *Branta canadensis* breeding in the North American Arctic' (Pyman 1960). This was obviously a Cackling Goose on size alone, and the location and carrier species were clearly compatible with a genuine vagrant. The description of it as 'dark' could indicate one of the western subspecies, although this could also apply to some nominate *hutchinsii*. The original submission could not be traced so the record was not reassessed by BBRC, but since it was an accepted, published record, it was included in the file for BOURC. Also included in the file were (in chronological order) submissions of birds from Lancashire, Norfolk, Argyll, Dumfries & Galloway and Moray & Nairn.

The Lancashire bird

On 14th November 1976, a very small 'Canada Goose' was discovered among Pink-footed Geese at Plex Moss, Lancashire, by John and Pamela Hall. It remained in the Plex Moss and Formby Moss area until 28th November and was seen by a number of other observers including Ted Abraham, Michael Ainscough, James Clift, Maurice Jones, Harry Shorrock, Phil Smith and Phil Thompson. MJ took some notes on the bird at Plex Moss on 28th November and also photographed it. A further photograph was taken by JC during the bird's stay.

MJ's notes describe the bird as being smaller than the accompanying Pink-footed Geese with fairly pale brown flanks and a relatively short bill, while the photographs also show a relatively short neck and an apparently pale breast. It was compared with the Canada Geese in the Wildfowl & Wetlands Trust collection at Martin Mere and found to be a good match for what was then termed 'Richardson's Canada Goose' *B. c. hutchinsii.*

BBRC assessment

This bird was accepted unanimously as a Cackling Goose by BBRC, with a strong view from a minority of members that it was identifiable as nominate *hutchinsii*. The Chairman's covering note to BOURC summarised the Committee's view thus: 'The size, being smaller than Pink-footed Goose, indicates that this must have been a Cackling Goose… The location, time of year and carrier species are all suitable for a vagrant

Maurice Jones

James Clift

363. Cackling Goose *Branta hutchinsii*, Plex Moss, Lancashire, 28th November 1976. Despite the distance from the photographer, the bird's small size and compact proportions (compared with Pink-footed Geese *Anser brachyrhynchus*) are apparent.

Cackling Goose, which has presumably abmigrated with Pinkfeet from Greenland. Caution may need to be exercised about underpart coloration… so while probably a Richardson's, this is probably not well enough documented for the first.'

BOURC assessment

With no existing documentation, the 1958 Argyll bird was considered by BOURC not to be acceptable as a 'first'. However, the submission of the 1976 Lancashire bird contained contemporary (albeit brief) notes and was accompanied by photographs which, although taken at some distance, nevertheless showed the key features of the bird, in particular its size. It was therefore considered sufficiently well documented for a first for Britain, while the suitable location and carrier species meant that the bird's credentials as a wild bird were felt to outweigh the possibility of captive origin. It was accepted unanimously as the first Cackling Goose for Britain and added to Category A of the British List. In terms of subspecies attribution, six members voted in favour of acceptance as nominate *hutchinsii*, while the other four felt that the evidence was insufficient to be certain.

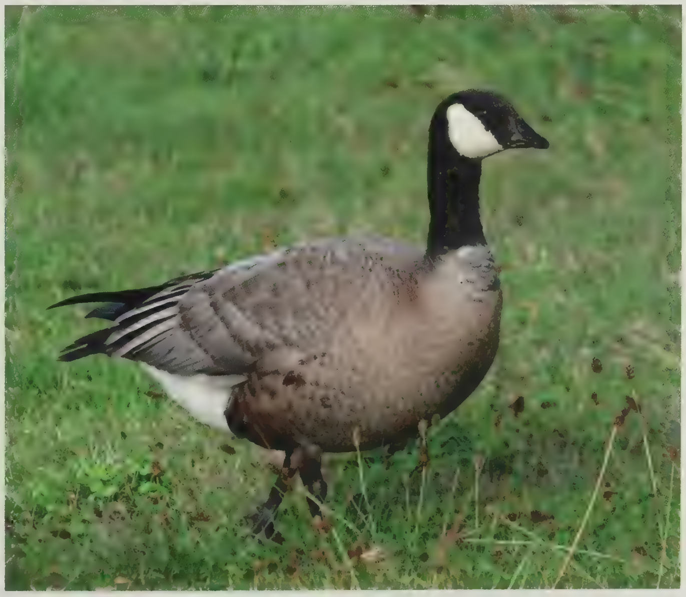
BBRC policy on historical and future records

The other accepted Cackling Goose records contained in the file sent to BOURC have now been published (Hudson *et al.* 2016). In the meantime, work continues to deal with other historical claims. This species warrants continuing treatment as a national rarity and the Committee thus welcomes submissions of past (post-1950) and future vagrant Cackling Geese for which contemporary evidence is available. Also sought are records of apparent vagrants that cannot readily be assigned to either Cackling or Canada Goose – most likely to be the case with putative *B. h. taverneri* and *B. c. parvipes* – and any such records that are accepted will be published as 'either/or'.

Evidence requirements

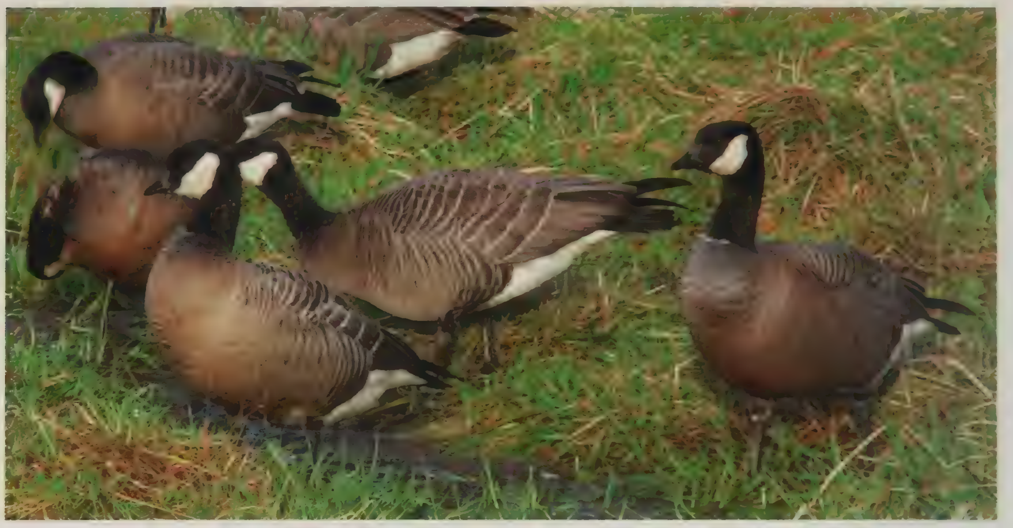
In terms of identification, detailed field notes, preferably accompanied by photographs or video footage, should constitute acceptable evidence. Photographs alone can be deceptive but prolonged observation will average out potentially misleading impressions. DNA evidence, biometric data or details from a ringed or marked bird may, of course, provide additional confirmation of identity. Documentation should be as full as possible so that records can, if necessary, be reviewed in the light of any future taxonomic readjustments or new identification criteria.

In terms of origin, the ideal evidence would be a ringing recovery, details of a marked bird or even stable isotope analysis. However, BBRC will consider favourably any birds showing evidence of a wild origin, for example those accompanying potential carrier species (most likely Barnacle Geese,



Steve Mlodinow

364. 'Ridgway's Cackling Goose' *Branta hutchinsii minima*, Marrowstone Island, Washington, USA, October 2014. The typical Cackling Goose compact shape, the short, thick neck and the very small bill are all evident here. The small rounded head and the dark breast (concolorous with or even darker than the flanks and upperparts) are typical of this subspecies. This bird is still in juvenile plumage.



Steve Mlodinow

365. 'Ridgway's Cackling Geese' *Branta hutchinsii minima*, Nisqually National Wildlife Refuge, Washington, USA, February 2007. The structural features of this tiny subspecies are shown well here. Note also the distinctive bronzy plumage hues, particularly in the underparts.

Pink-footed Geese or 'Greenland White-fronted Geese' *A. albifrons flavirostris* but potentially also Greylag Geese *A. anser* from Iceland) on dates and in locations suggestive of vagrancy. Submissions of lone birds, birds with feral geese and birds on dates or in locations less indicative of vagrancy will be less likely to be accepted.

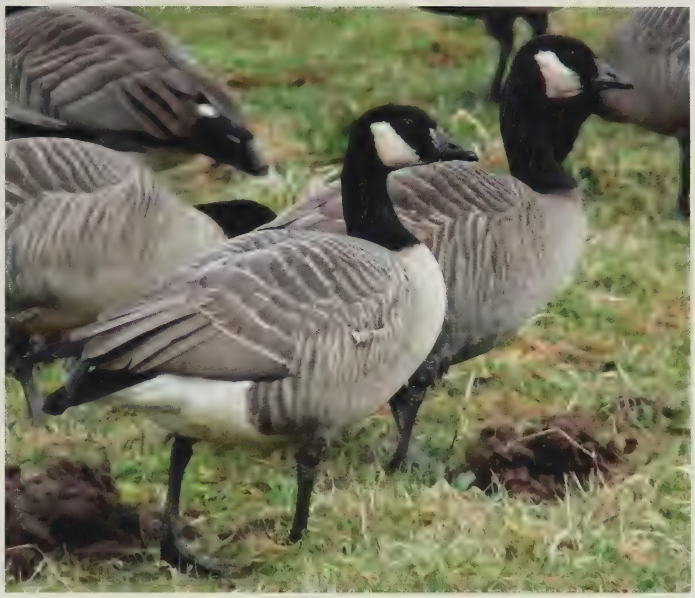
Subspecific attribution

Submissions will be assessed firstly as Cackling Goose but will also be considered to subspecies level if sufficient evidence exists. Any subspecies attributions will be sent to BOURC for consideration for admission to the British List at subspecies level.

Although the Lancashire bird was not accepted to subspecies, it was considered most likely to have been nominate *hutchinsii*. Indeed, most British records of Cackling Goose are thought to involve this subspecies, which is overwhelmingly the most likely form to occur. It is common, breeds widely across the eastern Canadian Arctic and is a long-distance migrant. It is thus a prime candidate for vagrancy to Britain. Moreover, nominate *hutchinsii* is present in wildfowl collections in Britain and northwest Europe but not in large numbers (Mlodinow *et al.* 2008). Claims of apparent vagrant nominate *hutchinsii* are therefore likely to be viewed most favourably by BBRC.

The smaller population size and western breeding and wintering range of *B. h. taverneri* make it a less likely vagrant to Britain, though it has wandered to eastern North America and to Hawaii, while at least one apparent vagrant resembling this subspecies has occurred in western Scotland (and in Ireland) with Barnacle Geese (Batty & Lowe 2001; Batty *et al.* 2002). It is 'essentially undocumented' in captivity in Britain (Mlodinow *et al.* 2008). However, continuing questions over the precise range and appearance of this subspecies somewhat undermine any claims in a vagrant context. It seems unlikely that any putative *B. h. taverneri* in Britain will prove acceptable, at least for the moment, although it may still prove acceptable as 'Cackling Goose (subspecies unknown)' or even as 'Cackling or Canada Goose'.

Although it is a relatively numerous subspecies, the southwest Alaskan breeding range of *B. h. minima* also makes it a less likely vagrant to Britain, yet it has wandered to eastern North America, eastern Siberia, Hawaii and Japan and apparent vagrants resembling this subspecies have occurred in western Scotland with Barnacle Geese (and apparent nominate *hutchinsii*). This subspecies is widely kept in waterfowl collections in Britain and northwest Europe (much more commonly than nominate *hutchinsii*) and is therefore a more likely escapee (Mlodinow *et al.* 2008). It is likely that any apparent *B. h. minima* in Britain will be regarded as a probable escape, unless in a location and with carrier species highly indicative of vagrancy. Since definitive identification to subspecies can be problematic, any putative vagrant *B. h. minima* may be best regarded as 'Cackling Goose (subspecies unknown)'.


Steve Mlodinow

366. 'Taverner's Cackling Geese' *Branta hutchinsii taverneri*, Nisqually National Wildlife Refuge, Washington, USA, March 2006. This is the largest Cackling Goose subspecies, showing a rather long neck, an oval- or pear-shaped head, a thick, triangular bill and a prominent breast. The breast is relatively pale (paler than the flanks and upperparts).

With a small population and a breeding range restricted to islands in the Bering Sea, *B. h. leucopareia* is the least likely of the four subspecies to reach Britain. Wanderers have reached Kansas and Hawaii but there has to date been no suggestion of transatlantic vagrancy. Although this subspecies is not present in numbers in wildfowl collections in Britain and northwest Europe (Mlodinow *et al.* 2008), any apparent *B. h. leucopareia* in Britain will, without good evidence to the contrary, be regarded as a likely escape.

Acknowledgments

I am particularly grateful to Chris Batty for his comments on a draft of this paper.

References

Anderson, B. W. 2010. *Evolution and Taxonomy of White-cheeked Geese*. AVVAR Books, California.

Banks, R. C., Cicero, C., Dunn, J. L., Kratter, A. W., Rasmussen, P. C., Remsen, J. V., Jr., Rising, J. D., & Stotz, D. F. 2004. Forty-fifth supplement to the American Ornithologists' Union Check-list of North American Birds. *Auk* 121: 985–995.

Batty, C., & Lowe, T. 2001. Vagrant Canada Geese in Britain and Ireland. *Birding World* 14: 57–61.

—, Hackett, P., & Lowe, T. 2002. Vagrant Canada Geese in Britain: autumn 2001. *Birding World* 14: 515–519.

Cramp, S., & Simmons, K. E. L. (eds.) 1977. *The Birds of the Western Palearctic*. Vol. 1. OUP, Oxford.

Delacour, J. 1954. *The Waterfowl of the World*. Country Life Ltd, London.

Fox, A. D., Sinnett, D., Baroch, J., Stroud, D. A., Kampp, K., Egevang, C., & Boertmann, D. 2012. The status of Canada Goose *Branta canadensis* subspecies in Greenland. USDA National Wildlife Research Center – Staff Publications. Paper 1136. http://digitalcommons.unl.edu/icwdm_usdanwrc/1136

Garner, M. 2008. *Frontiers in Birding*. BirdGuides Ltd, Sheffield.

Hanson, H. C. 2006. *The White-cheeked Geese: taxonomy, ecophysiographic relationships, biogeography and evolutionary considerations*. Vol. 1. AVVAR Books, California.

— 2007. *The White-cheeked Geese: taxonomy, ecophysiographic relationships, biogeography and evolutionary considerations*. Vol. 2. AVVAR Books, California.

Hudson, N., & the Rarities Committee. 2016. Report on rare birds in Great Britain in 2015. *Brit. Birds* 109: 566–631.

Leafloor, J. O., Moore, J. A., & Scribner, K. T. 2013. A hybrid zone between Canada Geese (*Branta canadensis*) and Cackling Geese (*B. hutchinsii*). *The Auk* 130: 487–500.

Mlodinow, S. G., Springer, P. F., Deuel, B., Semo, L. S., Leukering, T., Schonewald, T. D., Tweit, W., & Barry, J. H. 2008. Distribution and identification of Cackling Goose (*Branta hutchinsii*) subspecies. *North American Birds* 62: 344–360.

Pyman, G. A., on behalf of the Rarity Records Committee. 1960. Report on rare birds in Great Britain and Ireland in 1958. *Brit. Birds* 53: 153–173.

Sangster, G., Collinson, M. J., Helbig, A. J., Knox, A. G., & Parkin, D. T. 2005. Taxonomic recommendations for British birds. *Ibis* 147: 821–826.

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Editorial comment Martin Collinson, Chairman of BOURC during the assessment, has commented: 'The identification criteria that must be fulfilled for robust identification of Cackling Goose to species level in a vagrant context are described above. Identification to subspecies level is more problematic, even accepting current taxonomy, and for assessment of potential first records this was becoming a significant block to progress. BOURC regarded nominate *hutchinsii*, with its eastern Nearctic breeding range and comparative scarcity in European collections, to be a likely vagrant and unlikely escape. In contrast, *minima*, with its westerly distribution and comparative abundance in collections, was regarded as an unlikely vagrant and likely escape. In order to get some progress on Cackling Goose, BOURC asked BBRC to assess identification to species and pass on any records of individuals that occurred in locations and circumstances that did not obviously indicate captive origin. This done, BOURC had a selection of records to assess and unanimously accepted the Plex Moss individual as the first record. Identification to species is secure and the subspecies, while uncertain, was most likely *hutchinsii* and certainly not *minima*. As far as is possible with unringed wildfowl, the circumstances overwhelmingly suggested a wild origin.

'This paper also highlights the interaction that occurs between BBRC and BOURC, usually in a positive spirit of cooperation. It may at some point be desirable to evaluate why Britain has this unusual two-tier system of record assessment and whether it should go on. It is a legacy of the separate and occasionally rival roles of the Editors of *British Birds* magazine and the BOU in maintenance of an accurate British List in the first half of the twentieth century. Could better decisions be made more quickly if BBRC and BOURC combined into one committee or at least under the same umbrella? The committees have overlapping remits and their members have overlapping skill sets, evidenced by the number of people who make the leap between the two. Only a tiny proportion of BBRC's workload is potential firsts for Britain. Only those potential firsts that are not obvious escapees and for which BBRC accepts identification with a very high degree of confidence get passed on to BOURC. Once this happens, BOURC must also accept identification, assess provenance and hence proceed to acceptance/rejection and subsequent categorisation. Were the two to combine into the 'British Birds Records and Rarities Committee', the vast majority of rarity assessment would carry on as before, using the identification expertise of the ten 'rare men' (and hopefully one day, women) but in addition it would need to be perhaps two separate subcommittees: a 'Provenance and Categorisation' group using BOURC skills to provide a thorough, pedantic, evidence-based assessment of the wild origin of potential firsts and other records; and an 'Old Records' group using people who understand and are sensitive to pre-1950 standards of bird recording and documentation in pre-BBRC days. Pedantry over the complexities of identification criteria and provenance is an essential component of BOURC function and this extra level of protection for decisions affecting the British List must be maintained if the List is to remain authoritative in the face of its competitors.

'It has become apparent during my 14-year association that the challenges to the work of BOURC arise from within BOU itself. BOU is not a 'birders' organisation – it is governed and administered by people who have lots of other priorities that do not necessarily include the British List. Decisions by BOU Council in the last ten years have undermined BOURC and betrayed a lack of understanding about the requirements and responsibilities associated with BOURC's work. While it would be a great shame to lose the continuity associated with BOU's long custodianship of the British List, if the British List has become a peripheral, legacy activity for BOU, what can be done? Bringing BOURC's skill sets into the *BB* 'fold' to form a joint committee that maintains rigorous standards in a single tier within an organisation, *British Birds*, for which the British List is a top priority, might be a price worth paying.'

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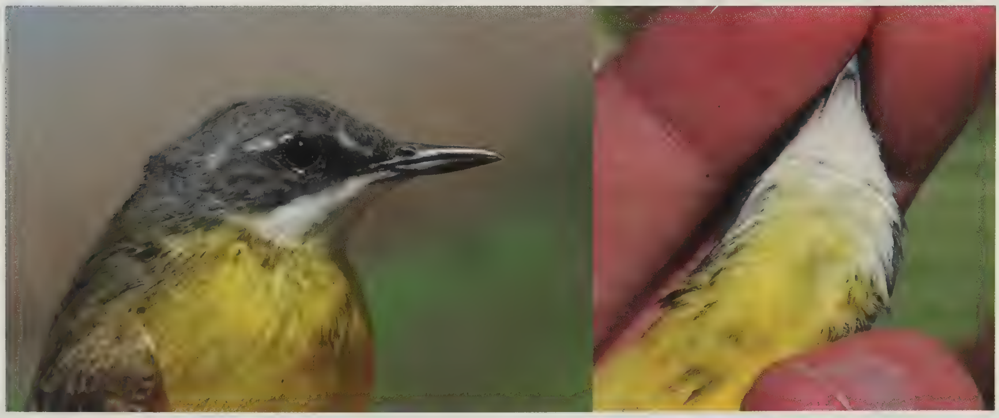
Letters

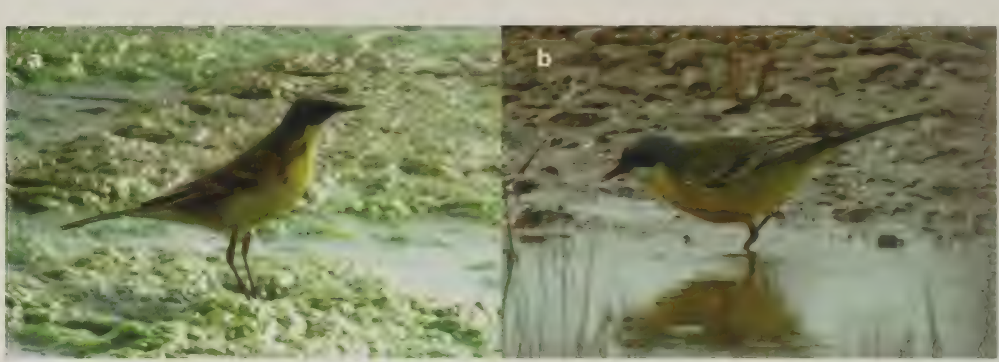
Yellow Wagtails in northeast Catalonia

I read with interest the BBRC's criteria for acceptance of 'Spanish' *Motacilla flava iberiae*, 'Ashy-headed' *M. f. cinereocapilla* and 'Southern' Wagtails *M. f. cinereocapilla* × *iberiae* in Rowlands (2016). In spring 2010, during three months living at Parc Natural dels Aiguamolls de l'Empordà (PNAE), Girona, Catalonia, Spain, I was able to make daily observations of large numbers of Yellow Wagtails, both local breeders and passage migrants, and in total several hundred individuals. Migrants included males typical of nominate *M. f. flava, iberiae, cinereocapilla,* and a small number of *flavissima*, apparent *flava* × *cinereocapilla/iberiae* and apparent 'Southern Wagtails' *cinereocapilla* × *iberiae* (plate 367). Local breeding birds, identified as such by their behaviour, began their breeding cycle relatively early and were singing and displaying on site from late March, during which time migrants were still passing through. All breeding males observed at El Matà – an area of grazed coastal marsh on the PNAE reserve – presented a phenotype consistent with *cinereocapilla* or, in some cases, with presumed influence from *iberiae.* Just one breeding male was observed at a second site on the reserve, Estany de Palau, an area of damp grassland bordered by farmland and a reedbed some 3 km inland: a typical *iberiae* was caught and ringed there in breeding condition. Breeding birds across the entire PNAE reserve were heard to give a harsh call, typical of 'Southern Wagtail'.

No effort was made during the period to count breeding birds (a conservative estimate would be a few tens of individuals) or quantify variation, but I made notes and photographed as many breeding males as possible in an attempt to assess variation in head pattern, at least qualitatively. Breeding males at El Matà showed variation in two aspects of the head pattern: the amount of white in the supercilium (from none, or some limited white behind the eye, as in *cinereocapilla,* to a thin broken supercilium, probably outside the variation of *cinereocapilla* and fitting the 'Southern Wagtail' phenotype), and the definition of the border between the yellow breast and white throat. Given the relatively close proximity of the study area to southern France, and thus to populations of nominate *flava*, I had initially considered that yellow bleeding into the white of the throat could be


Stephen Menzie

367. First-summer (2CY) male presumed 'Southern Wagtail' *Motacilla flava cinereocapilla* x *iberiae*, Parc Natural dels Aiguamolls de l'Empordà, Spain, April 2010. This bird showed no signs of breeding but matches the phenotype of some individuals that were breeding locally. The extent of white in the supercilium is somewhere between *cinereocapilla* and *iberiae* with some white present above the lores. There are just three white feathers below the eye. On close inspection, yellow from the breast extended into the white throat. Despite this, the dark ear-coverts and still largely white throat are typical of *cinereocapilla/iberiae* and there seems no reason to consider this bird anything other than a 'Southern Wagtail'. The bird gave a harsh 'Southern Wagtail'-type call on release.

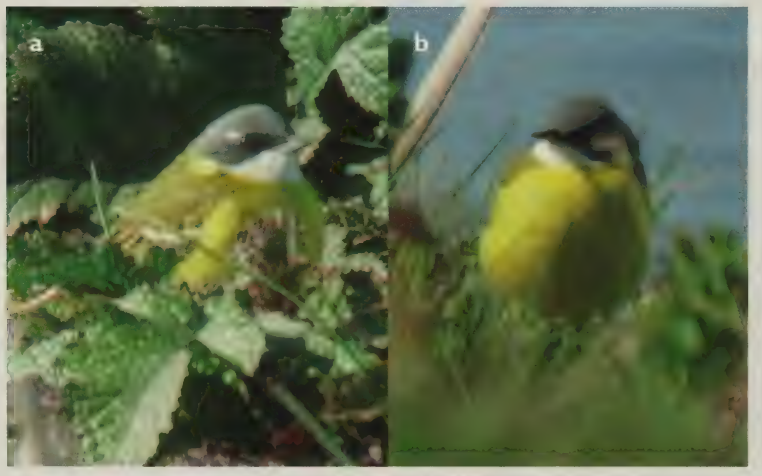


Stephen Menzie

368. Male Ashy-headed Wagtails *Motacilla flava cinereocapilla*, Parc Natural dels Aiguamolls de l'Empordà, Catalunya, Spain, March 2010; the bird in 368a is an adult (3CY+), that in 368b is unaged. Both show a classic, all-dark head pattern but with yellow extending from the breast into the white throat.

a sign of *flava* influence. Logically, those birds showing *flava* influence would be more likely to possess a more extensive supercilium. Yet my observations showed that the extent of the supercilium did not correlate with the degree of demarcation between the white throat and yellow breast. Some of the most poorly defined white throats were seen on birds with no supercilium (plate 368), although no birds observed breeding at PNAE had such extensive yellow as the individual depicted in plate 226 of Rowlands (2016). Conversely, some birds with white in the supercilium showed a well-defined border to the throat (plate 369). For those birds that were aged (not always easy for Yellow Wagtails), age did not appear to play a factor in this variation.

Breeding Yellow Wagtails in Catalonia are largely confined to coastal marshland areas in the north (PNAE), centre (Barcelona) and south (Ebro Delta) of the region and are absent from inland areas, and are thus isolated from the main Iberian breeding population of *iberiae* (Estrada *et al.* 2004; de Juana & Garcia 2015). De Juana & Garcia (2015) listed *cinereocapilla* as 'an uncommon passage migrant, in eastern Iberia and the Balearic Islands'. In contrast, Estrada *et al.* (2004) stated that 'the Catalan breeding population showed intermediate characters between the *iberiae* and *cinereocapilla* subspecies and coincides with the populations described for southeast France known as "Southern Wagtail". As well, pure individuals belonging to both of these subspecies have been reported breeding in different sites.' From my observations, it seems that many of the males observed breeding at PNAE in 2010, with the exception of the one *iberiae* (plate 370), best matched

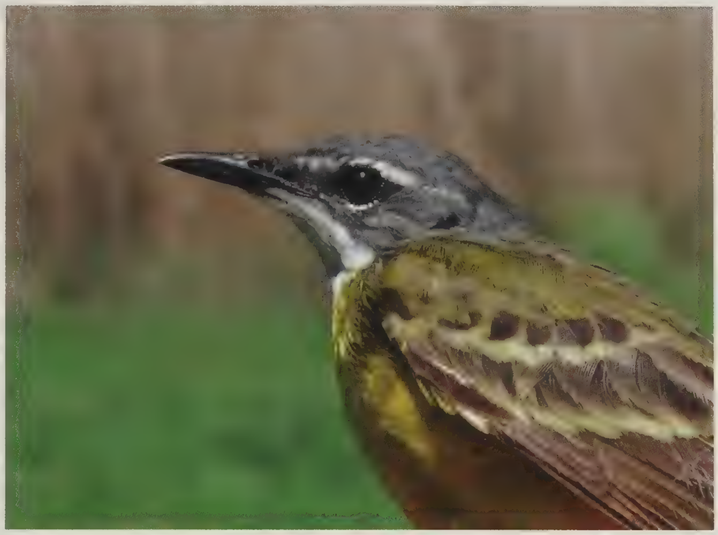


Stephen Menzie

369. First-summer (2CY) male Ashy-headed Wagtail *Motacilla flava cinereocapilla* or 'Southern Wagtail' *M. f. cinereocapilla x iberiae*, Parc Natural dels Aiguamolls de l'Empordà, Spain, March 2010. This male shows a short white supercilium behind the eye, probably within the variation of *cinereocapilla* but perhaps suggesting *iberiae* influence, and a well-defined white throat. The quality of the photograph and the angle of the bird's head in 369a gives a false impression of how dark the bird's crown was; 369b gives a more realistic overall impression of the crown colour.

cinereocapilla, with a smaller number of birds matching *cinereocapilla* × *iberiae* intergrades.

The question of historical genetic purity may be impossible to answer, especially in a population breeding so close to nominate *flava*. However, the lack of any other visible signs of mixing in birds such as those shown in plates 367 & 368 suggests that birds otherwise typical of Ashy-headed or 'Southern Wagtail' can show a degree of yellow extending into the white throat. This agrees with the findings of Langenberg & Langenberg (2009), who showed that *cinereocapilla* from northeast Italy could show yellow extending into the white throat. While I agree that, on current knowledge, these individuals should not be accepted in a vagrant context, it may well be the case that future research in the core breeding areas of these taxa may show that yellow bleeding into the white throat is not necessarily indicative of influence from *flava*.



370. First-summer (2CY) male Spanish Wagtail *Motacilla flava iberiae*, Parc Natural dels Aiguamolls de l'Empordà, Spain, April 2010. With a near-complete white supercilium, relatively pale ear-coverts, well-defined white throat and a single row of white feathers below the eye, this breeding male is typical of *iberiae*. Note also the rather thick bill.

References

Estrada, J., Pedrocchi, V., Brotons, L., & Herrando, S. 2004. *Atles dels Ocells Nidificants de Catalunya, 1999–2002*. Lynx Edicions, Barcelona.

de Juana, E., & Garcia, E. 2015. *Birds of Iberia*. Christopher Helm, London.

Langenberg, J., & Langenberg, T. 2009 [Plumage variation in Ashy-headed Yellow Wagtails *Motacilla cinereocapilla*.] *Otus* 1: 11–17. (In German)

Rowlands, A. 2016. BBRC and Yellow Wagtails. *Brit. Birds* 109: 389–411.

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Notes

Early song by juvenile Robin

At about 09.00 hrs on 7th May 2016, I was watching a well-grown and quite independent juvenile Robin *Erithacus rubecula* in my garden in Somerset. The bird probably came from a nest that had been built in the garden extremely early in the year, perhaps as a result of a relatively warm early winter. Perched atop a shrub at a height of about 2 m, the Robin started to vocalise: a few rather shrill warbled notes were given, each note lasting a second or so; after an interval of perhaps ten seconds, a second warbled phrase was given. At this point, an adult Robin began to sing, the juvenile flew off and I did not hear it singing again.

Lack (1943) stated that young Robins can sometimes be heard in song in July, and D. J. May reported a juvenile Robin in full song on 23rd June 1945 in Surrey (*Brit. Birds* 39: 119), but my observation seems to have been on a remarkably early date for the first fragments of juvenile song.

Reference

Lack, D. 1943. *The Life of the Robin*. Witherby, London.

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Reviews

The Keartons: inventing nature photography

By John Bevis
Uniformbooks, 2016
Pbk, 192pp; numerous half-tones
ISBN 978-1-910010-09-9
£13.99

In my mind, I have always regarded the Kearton brothers, Richard and Cherry, as among the earliest, if not the very first, bird photographers. In particular, the famous 'stuffed ox' photographic hide that they built was an iconic reminder of their endeavours. John Bevis has produced a scholarly review of the life and works of the two brothers, including a chapter devoted specifically to the various ingenious hides used by the Keartons. There is much detail for photographers to pore over – at times I felt that I was reading a PhD thesis – for example, there are copious endnotes, lists of the books written by both Richard and Cherry (about 20 in each case), a list of Cherry's films (over 30), and a comprehensive list of general references.

The two brothers were born and brought up in Swaledale, Yorkshire. Richard (1862–1928), perhaps the more serious naturalist of the two, was unfortunate enough to fall and dislocate a hip at an early age when climbing to investigate a bird's nest; this was badly aligned by a drunken bonesetter and he was left with one leg permanently shorter than the other. However, while recovering from the accident, he spent time with his paternal grandfather, who passed on country lore and a love of wildlife. In 1882 he obtained a job in London with the publishers Cassell, and what he learnt there obviously stood him in good stead in writing his many subsequent books. Brother Cherry (1871–1940) joined him at Cassell in 1887, and they worked there for a number of years, the two both leaving in about 1898.

From then on, both were involved in wildlife photography. Richard's first book, *Birds' Nests, Eggs, and Egg Collecting*, was published in 1890, then *British Birds' Nests: how, where, and when to find and identify them*, with photos taken by Cherry, came out in 1895. Over the next few years came a steady stream of books with which they were both involved, interspersed with travels for photography and lecturing. Richard in particular was much involved in the international lecturing circuit and appears to have played a significant part in the popularisation of natural history.

Initially Cherry assisted with his brother's books as 'lead' photographer, but in 1909 he made the first of many visits to Africa. He had taken up cine-photography in 1903, and had filmed his first moving pictures of a bird, a Common Whitethroat *Sylvia communis*, in 1905. After involvement in the First World War in East Africa, he subsequently concentrated on wildlife filming, again often in East Africa; he was a pioneer nature photographer with cine film as well as stills.

There are many photographs in the book, well chosen to give a broad view of the Keartons' photography, though in the absence of any originals (the copyright expired some time ago so none remain), the quality of reproduction leaves something to be desired. But that gives an appropriate period feel to their work. For modern bird photographers, who do little in the way of nest photography, perhaps the most interesting of the photographs are not only those illustrating the range of hides used, but also those showing the preparation work that was needed to get in the position for photography. 'Photographing a Shag' shows an exposed sea cliff and the photographer's head under the cloth cover needed for a plate camera – a careless step would be fatal, while 'A perilous descent' shows (presumably Cherry) abseiling over a rock overhang, plate camera and tripod hanging from his shoulder.

As Bevis says, 'they were the first [nature photography] professionals, and that they achieved so much, and are still remembered and valued, is due to the systematic approach they took to their task, funded by their stores of energy, tenacity, originality, insight and enthusiasm.'

Richard Chandler

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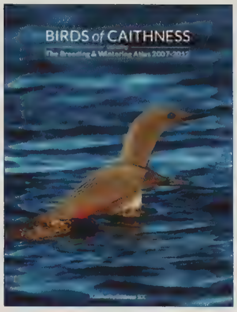
Birds of Caithness, including The Breeding & Wintering Atlas 2007–2012

Edited by P. Davey, S. Manson, E. Maughan, D. Ormand & J. Smith
Caithness SOC, 2015
DVD only. **£15.00**



Following the recent national atlas, published in 2013 (Balmer *et al.* 2013), a number of local atlases have now been published, many of which have been reviewed in *BB*. So far, all have been published as books, but this one, for Caithness, is the first to be available as a DVD only.

The content of *Birds of Caithness* is similar to that of other county atlases, although it is more of a county avifauna with atlas maps included. There are the usual introductory chapters, which include information on the survey methodology for the atlas, a history of ornithology in Caithness and an essay on the Caithness landscape and the birds of the different habitats. A chapter entitled 'The Balance of Nature' looks at how the local environment has changed and is changing, and the implications for the avifauna. In Caithness, prevalent issues are the pace of agricultural change, the debacle that was the afforestation of parts of the Flow Country in the 1970s and 1980s, and the spread of windfarms. These initial chapters serve as a rounded introduction to an area unfamiliar to many birders.

Moving on to the species accounts, a standard format makes the finding of relevant information simple. Accounts for all 173 regularly occurring species are generally allocated two pages: on the left, the text is divided into three sections – historical status, present status and future trends; on the right there are one or two maps showing winter and breeding and summer distribution at the tetrad level, based on fieldwork in the years 2007–12. With almost 500 tetrads to cover, and much of the county being without roads and tracks, the work undertaken to produce the maps must have been considerable. I wonder if coverage in the far south of the county was poorer than in the north, as many maps show large gaps here, especially in winter. The maps themselves are simple, showing distribution only, overlaid on a tetrad grid pattern. Each map is described briefly with reference to local counts where these are available or appropriate. Some important species such as Greenland White-fronted Goose *Anser albifrons flavirostris* and Common Scoter *Melanitta nigra* receive more extensive treatment. Rare and scarce species are covered in a separate chapter; some have maps, some longer texts in the same format as the main accounts. Every species recorded in Caithness in the period 2007–12 appears in one of these two chapters and for the rarer (72) species all known records, including historical ones, are listed. Many species are illustrated with high-quality colour photographs of the birds within the county.

So what of the decision to produce a DVD and not a book? It is cheap – just £15 for a DVD and an eight-page booklet, and avoids the costs and risks of printing and distribution. But its reach and accessibility may be reduced, which is a pity. How easy is it to access a book like this electronically? Six separate PDFs are presented to the reader when the disk is loaded into the computer. One is the whole work, the others the same but split up to make access to different parts of the book easier, as explained in a 'read me' file. Purchasers also receive a code for an exclusive website where they can read the pages using page-turner format. These options mean that you can read the 'book' on a regular PC or laptop, or access it on an internet-enabled tablet and take it with you anywhere. You can zoom right in to the photos (just like reading the digital version of *BB*), which is rewarding because of the high quality of the photos. I found access via the website on a tablet was easiest and most flexible. Every page is laid out just as it would be in a book but there are no shortcuts to sections – you have to work through page by page. An omission in my mind is the lack of statistics on the number or proportion of tetrads occupied for each species, or even of the number of species recorded in total.

The whole impression is of a comprehensive and thorough review, which will be an essential reference for anyone interested in Scottish or Caithness ornithology (and I was surprised to discover that only 200 copies have been produced). It is to the great credit of the Caithness branch of the SOC that they have published this important work, and within three years of the completion of atlas fieldwork.

Mark Holling

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Lapwings, Loons and Lousy Jacks: the how and why of bird names

By Ray Reedman
Pelagic Publishing, 2016
Hbk, 292pp; many black-and-white photographs
ISBN 978-1-78427-092-6
£19.99

Every birder should know what a Lapwing is, and most will know what a Loon is too – but what about a Lousy Jack? It is an Australian species, the Apostlebird *Struthidea cinerea*: just one of the many new things I learnt from this intriguing book.

The subtitle indicates what the book is all about, but it is important to read the introductory section closely before delving further. Ray Reedman is at pains to point out that he has written neither a 'work of learned reference' nor 'a bedside companion': instead, he suggests it is 'a sort of bridge between the hobby of birdwatching and aspects of language which otherwise shut out the average birder'. He writes as a birder, but also, as is very evident, as a man whose professional life has revolved around languages and literature, and I fear that in trying not to create a serious work of reference he has failed! I think I shall go back to this book again and again.

It is a very personal book, as it is very much confined to Ray's own field experience and to his travels outside the UK, to North America, Australia and Trinidad. For convenience, he more or less follows the sequence of birds in the *Collins Bird Guide*, looking at the English and the scientific names and introducing comparisons and parallels with species in these other lands, explaining, translating and, in the overseas context, also tracking down surviving local names which predate the arrival of European colonists. It is a pity, perhaps, that he has not been able to extend his research to Africa and Asia, or at least those parts where English has been, or still is, widely used. Essentially, we see the history of English names, and then learn about the meanings of the scientific names – subjects which, of course, have been written about before, but not so handily juxtaposed as they are here.

There are many examples, some well known, of how names, both in the vernacular and in their Latinised form, are sometimes inappropriate or misleading, are even quite ridiculous or are downright wrong. Where the scientific names are concerned, most of us will have to rely on the author being correct, and from my admittedly limited knowledge and very rusty Latin I see no reason not to trust him – but perhaps he will forgive me for suggesting that, with reference to *Cisticola juncidis*, the Latin root of the second word means rush, not reed, which is an important distinction – the inference that the Fan-tailed Warbler is a reedbed bird is actually incorrect.

Which brings me to the awful name 'Zitting Cisticola', and that reminds me of the still somewhat controversial and even rather tedious business of standardising English names across the world. Ray explains what is going on here, or is supposed to be, and outlines some of the inevitable difficulties and disagreements. He does not take sides, but I have a sneaking feeling that he would rather like many of the 'old names' to survive. I cannot help but agree with his suggestion that we may never see complete uniformity...

On the whole, I like this book, although I find some of the humour a bit laboured. Obviously not everything can be included, but it seems a pity that in the aside about the legend of the Greek playwright Aeschylus being killed when an eagle dropped a tortoise on his head, no mention is made of the Golden Eagle *Aquila chrysaetos*, which was 'rediscovered' dropping tortoises over 40 years ago, in the Balkans, so that the Lammergeier *Gypaetus barbatus* was perhaps not guilty at all. More careful research would have shown that Peregrines *Falco peregrinus* were controlled for killing carrier-pigeons mainly during the Second World War, not the whole first half of the last century, but that is a fairly minor quibble. There is no excuse, however, for the incorrect spelling of Eleonora of Arborea.

Mike Everett

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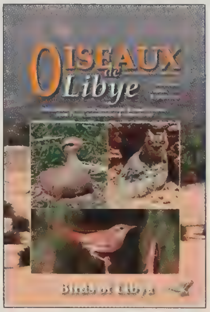
Birds of Libya/Oiseaux de Libye

Paul Isenmann, Jens Hering, Stefan Brehme, Mohamed Essghaier,
Khaled Etayeb, Essam Bourass and Hichem Azafzaf
Societé d'Etudes Ornithologiques de France (SEOF), 2016
Pbk, 302pp; colour photos
ISBN 978-2-916802-04-6; **£44.99**



This is the fourth major work on North African birds to be published by SEOF, with previous volumes having covered Algeria, Mauritania and Tunisia. The link between each of these has been Paul Isenmann of the French institute CNRS. This time he has used several collaborators to produce a much-needed avifauna of the country, effectively the first since the BOU Checklist *The Birds of Libya*, written by Graham Bundy in 1976.

The book is written in English and French and gives details of 350 bird species recorded in Libya (317 in Bundy). The fourth-largest country in Africa, Libya extends across almost 1.8 million km², while its coastline of 1,770 km is the longest of any African country bordering the Mediterranean. However, only about 100 species breed here compared with almost twice that number in Tunisia, which is just a tenth of the size. This is primarily due to the lack of available habitats, as most of the country is Saharan desert.

The book gives an introduction to the country that includes an outline of its climate and geography, plus a detailed review of the key pioneers who started to document its avifauna. There is also a biogeographical analysis of the breeding species and the place of Libya in the Mediterranean and Palearctic–Afrotropical migration systems. The main habitats and locations are also described and illustrated. The effect of humans, including bird trapping and the shooting of migratory species, is also covered.

The main interest is the checklist itself. Apart from vagrants, most species are allocated 100–200 words of text including a status code. A summary of breeding, wintering or passage status is followed by a section on nesting data that describes what evidence has been collated locally. For migrants there is a section describing their likely origins, with details of ringing recoveries. The book is very well illustrated with colour photographs of birds and habitats. There are colour distribution maps for 34 of the breeding species, which underline the importance of the coastal strip in comparison with much of the country. Although available data for many species are thin, it would have been good to have seen distribution maps of all breeding species. There are many tables in this book – such as lists of breeding species, those suspected of breeding, population estimates of colonial species, those that are extinct or declining – and also an extensive bibliography of over 500 reférences.

Sadly, the situation in Libya remains tense following the civil war in 2011, and fighting still continues in a number of areas. Tourists are currently advised against visiting, since the threat of terrorist attacks and kidnapping remains high. We can only hope that the situation improves before too long; once it does, birders now have access to a great resource to help them.

Keith Betton

Eagles

By Mike Unwin
Bloomsbury, 2016
Pbk, 128pp; many colour photographs
ISBN 978-1-4729-2183-3; **£9.99**

This is the latest slimline volume in the RSPB 'spotlight' series, which seeks to illuminate some of our most popular and high-profile birds and mammals. It is lavishly illustrated with one or more colour photographs on almost every page, roughly equally split between the two British eagles. The accompanying text is authoritative but light and easy to read. It provides an accessible, broad overview of the ecology of these two birds but has enough detail to hold the attention of the more experienced. Even raptor devotees will learn something new, or be reminded of things that had slipped from memory. It is highly recommended for anyone with a few hours to spare and a desire to learn a bit more about these birds.

Ian Carter

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Birding Across the Border: where to watch birds in Varanger and the Murmansk region

By Bjørn Frantzen, Morten Günther, Eugene Potorochin and Yuliya Soltsevao
Norwegian Institute of Bioeconomy Research, 2016
Pbk, 239pp; maps, many photographs
ISBN 978-82-17-01607-6; £24.99

Starting with the beautiful drake King Eider *Somateria spectabilis* on the cover, this guide is liberally illustrated with a wide variety of mainly high-quality photographs of the iconic birds of the region. Also included are images of the habitats and birders in action at the sites described, an interesting addition to the usual 'where to watch' guides. The book covers the rather well-known and increasingly popular Varanger region of Norway (24 sites) and the poorly known region of Murmansk (25 sites) on the other side of the Russian border, where the locations are described as hard to access, the habitats as wilderness with few facilities and mainly lacking in tourist infrastructure. While the Varanger area will no doubt continue to increase in popularity, how much use the Murmansk site descriptions will be is questionable at this time, but for the would-be explorer there are no doubt discoveries to be made in a region studied only by scientists.

Each location/area has a detailed map with symbols showing parking areas and viewpoints as well as useful things like petrol stations, food shops and accommodation as well as the best times of year to visit, time required to explore the site and mobile phone coverage. Timing, species likely to be encountered, access details, other flora and fauna, nearby locations and facilities form the bulk of each site text. Looking at the sites I know quite well from repeated visits to the Varanger area, the details on access and birds seem to be accurate and in many cases there are additional bits of information and species added to sites that I thought I had explored well. The species mentioned often include levels of abundance and the best times to see them so that visitors can plan their trip to stand the best chance of encountering desired species. The information is all bang up to date and includes references to the rarities found at each location. An introductory chapter has lots of useful information on public access, car rental, driving and accommodation, with links to local weather sites, tides and maps.

Times have changed dramatically since my first visit to Varanger – as recently as 2005 – and this guide is a very useful addition to the ever-increasing amount of information that is available to assist birders to make the most of their still somewhat expensive visits to this outpost of mainland Europe.

Graham Catley

Owls of the World

By James Duncan
Reed New Holland, 2016
Hbk, 192pp; 120 colour photos
ISBN 978-1-92151-764-8; £19.99

At first sight this appeared to be a 'coffee table' book, but to suggest that would be a mistake. It is a knowledgeable and scholarly overview of the owls, written in a style that makes it accessible to the non-specialist, and illustrated with a mass of images, many of quite outstanding quality.

The opening pages describe owls and their structural adaptations to a largely nocturnal lifestyle. A superb photo of a Great Horned Owl *Bubo virginianus* skull shows the remarkable size of the eyes, which allow the bifocal vision essential to a predator, and how they are fixed and almost immobile in the head. This links to a discussion of the anatomical details of head rotation and its importance when eyes are immobile. Another section shows the asymmetry of the ear openings, and the author explains clearly how important this is for acoustic directionality when hunting in near-darkness. There are also well-written sections on feather structure as an adaptation to silent flight, camouflage, colour morphs and sexual dimorphism. Having introduced owl

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anatomy and its evolutionary adaptations, the author turns to ecology and behaviour. Again these subjects are illustrated with stunning photographs.

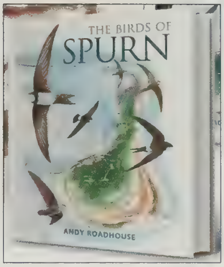
The second half of the book deals with the families and major genera of owls. There is not space to illustrate all 240 species, but there are images of every genus and brief descriptions of the taxonomy of each. This leads into a discussion of the interaction between owls and humans, both in mythology and in modern science and conservation. The book closes with a list of those species that the author recognises. This seems very up to date, including (for example) Rinjani Scops Owl *Otus jolandae* from Rinjani National Park on the island of Lombok, described by George Sangster and his colleagues in 2013.

Much of the contents of this book will be familiar to many *BB* readers, but it gathers the information together in a very readable style. My only quibble is with the design. Whoever put this book together did a major disservice to some of the photographers. Publishing images of such high quality across a double page ruins their impact. There are too many of these, and all too often a significant part of the image is lost in the 'crease' between the two pages. That aside, this book would make an ideal Christmas present for a youngster who shows an interest in birds that goes a touch beyond simple listing. Thoroughly recommended!

David Parkin

The Birds of Spurn

By Andy Roadhouse
Spurn Bird Observatory, 2016
Hbk, 704pp; many colour photographs and illustrations
ISBN 978-0-9565571-7-9
£45 plus £7.50 p&p from http://shop.spurnbirdobservatory.co.uk



Spurn, on the East Yorkshire coast, is one of the UK's foremost birding sites and a magical place to visit, as any birder who has been there can attest to. Spurn is also blessed with an active and enthusiastic birding community, centred around the bird observatory. In more than 700 vibrant pages, *The Birds of Spurn* describes the Spurn area, its history, and the 391 bird species observed within the recording area. The layout is clean and easy to follow, while the carefully chosen photographs (95% are taken in the Spurn area) and beautiful artwork really brighten up the pages. The mix of artwork styles – from Darren Woodhead's no-lines watercolours to Jonnie Fisk's bug-eyed caricatures – gives the book a charm that takes the work beyond being simply a reference work. Indeed, I spent some time flicking through simply admiring just the illustrations.

Species entries cover occurrence from historical to modern day, with a breakdown by season for those species that require it. All individual records are listed for species recorded fewer than about 20 times. At-a-glance maximum counts are given for species across the seasons and earliest and latest dates are provided for migrants; for those species with sufficient data, bar graphs show changing fortunes from the 1950s onwards, while a ringing summary is given where relevant. The book is engaging and readable throughout, and the author has done a great job in ensuring this isn't just a book of statistics. Field descriptions and finder's accounts add personality and detail to many of the rarity records.

In an effort to keep *The Birds of Spurn* up to date, regular updates will be issued to Friends of Spurn members (www.spurnbirdobservatory.co.uk/membership). Each book comes with a paper folder for updates after they have been printed off. I doubt that my paper folder will receive much action – the files will live in a folder on my laptop – but the plan for updates and corrections is an excellent idea, and surely one that will be widely copied.

It goes without saying that anyone interested in Spurn and its birds should own this book, but the recommendation to buy it extends much further: to anyone interested in migration, in UK rarities, in coastal birding or local patching, in bird counts and historical recording, or simply anyone who understands the value of such a thoroughly researched book as this. *The Birds of Spurn* represents a landmark in Spurn's birding history. Andy Roadhouse, who has undergone a personal battle with illness to see this work through to publication, deserves enormous congratulations and should be immensely proud of this book, as should all those – past, present and future – involved with making Spurn the place it is.

Stephen Menzie

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Recent reports

Compiled by Barry Nightingale and Harry Hussey

This summary of unchecked reports covers early August to early October 2016.

Headlines In a rarity-soaked period, the outstanding birds were a Red-footed Booby in Sussex, a Brown Booby in Co. Kerry, a mobile Royal Tern in western Ireland and an Eastern Kingbird in the Outer Hebrides. More arrivals from a westerly direction included Sora and Cliff Swallow on Scilly, Western Sandpiper and Yellow-billed Cuckoo in the Outer Hebrides, and Rose-breasted Grosbeak and Common Yellowthroat in Ireland; plus three Swainson's Thrushes and six Red-eyed Vireos, a Sharp-tailed, two Solitary, at least 28 Baird's and 31 Semipalmated Sandpipers and 21 Lesser Yellowlegs. High pressure over Scandinavia saw sustained easterly winds that brought Eastern Crowned and Pallas's Grasshopper Warblers to Yorkshire and an Orphean Warbler to Shetland, together with four Brown Shrikes in the Northern Isles, a Blyth's Pipit on Scilly, a small arrival of Pallid Harriers, a huge influx of Yellow-browed Warblers, 14 Arctic, seven Lanceolated, up to nine Booted, a Sykes's, three or four Paddyfield and 21 Blyth's Reed Warblers, one Siberian, two Black-throated and four White's Thrushes, and a Pechora Pipit. Aside from the boobies, other exciting seabirds included several sightings of Black-browed Albatross and Fea's/Zino's Petrels, a Swinhoe's Storm-petrel on Fair Isle and a Brünnich's Guillemot in Fife, as well as impressive movements of the more regular shearwaters and skuas. Also worthy of mention are a Franklin's Gull in Northumberland, two Isabelline and two Lesser Grey Shrikes, a Moltoni's Warbler and ten Red-flanked Bluetails.

American Wigeon ***Anas americana*** Records from Lancashire & N Merseyside, Leicestershire & Rutland, Orkney and Perth & Kinross. **Black Duck** ***Anas rubripes*** Strontian (Highland), long-stayer to 7th October. **Ferruginous Duck** ***Aythya nyroca*** Records from Greater London, Warwickshire and Wiltshire. **King Eider** ***Somateria spectabilis*** Long-stayers in Moray & Nairn and Co. Donegal. **Surf Scoter** ***Melanitta perspicillata*** Records from Angus & Dundee, Denbighshire, Fife, Co. Kerry, Lothian, North-east Scotland, Orkney, Outer Hebrides and Shetland. **White-winged Scoter** ***Melanitta deglandi*** Blackdog/Murcar (North-east Scotland), long-stayer to 29th August. **Hooded Merganser** ***Lophodytes cucullatus*** Lochwinnoch (Clyde), 7th October. **White-billed Diver** ***Gavia adamsii*** Blackdog, 14th August.

Black-browed Albatross ***Thalassarche melanophris*** Prawle Point (Devon), 19th August; Bempton and Flamborough (Yorkshire), 5th October; Cley, then Happisburgh (Norfolk), 6th October; Sheigra (Highland), 7th October. **Fea's Petrel/Zino's Petrel** ***Pterodroma feae/madeira*** Ram Head (Co. Waterford), 3rd August; Galley Head (Co. Cork), two, 19th August and one, 3rd September; Bridges of Ross (Co. Clare), 20th August; Cape Clear (Co. Cork), 21st August and 3rd September; Pendeen (Cornwall), 28th August; Skellig Michael (Co. Kerry), 30th August; Porthgwarra (Cornwall), 3rd September. **Wilson's Storm-petrel** ***Oceanites oceanicus*** Scilly, from pelagics, one, 12th August, four on 20th and 22nd August, singles 1st and 5th September; Porthgwarra, 12th August; Pendeen, three, 21st August. Also, about 38 in Ireland with records from Co. Clare (five), Co. Cork (27 or 28), Co. Galway (two) and Co. Kerry (three). **Swinhoe's Storm-petrel** ***Oceanodroma monorhis*** Fair Isle, 14th–15th and 23rd August (returning bird from 2013). **Red-footed Booby** ***Sula sula*** St Leonards-on-Sea (Sussex), 4th September, when taken into care. **Brown Booby** ***Sula leucogaster*** 10 km off Skellig Michael, 13th–14th August. **Dalmatian Pelican** ***Pelecanus crispus*** Long-stayer in Cornwall to 28th September, then Taw Estuary (Devon), to 7th October.

Little Bittern ***Ixobrychus minutus*** Marston Vale CP (Bedfordshire), 20th August. **Night Heron** ***Nycticorax nycticorax*** Nuneaton (Warwickshire), 13th August. **Squacco Heron** ***Ardeola ralloides*** Far Ings (Lincolnshire), long-stayer to 9th August. **Cattle Egret** ***Bubulcus ibis*** Records from Cambridgeshire (four), Cheshire & Wirral, Devon (two), Gloucestershire, Kent, Lancashire & N Merseyside (three), Norfolk (one or two), Scilly (two) and Co. Wexford. **Purple Heron** ***Ardea purpurea*** Records from Anglesey (two), Kent (three), Oxfordshire, Suffolk, Warwickshire and West Midlands. **Black Stork** ***Ciconia nigra*** Stradbroke (Suffolk), 31st August; Kithurst Hill (Sussex), 4th September; Portland, then Chesil Cove (both Dorset), 7th September; Roadford Resr (Devon), 8th September; Lostwithiel (Cornwall), 8th September.

Black Kite *Milvus migrans* Caherciveen (Co. Kerry), 15th July; Bridgetown (Co. Wexford), 31st July; Manor Kilbride (Co. Wicklow), 20th September. **Pallid Harrier** *Circus macrourus* Up to ten, including two on 9th September and another six during 14th–18th September. Records from Cornwall, Derbyshire, Highland, Kent (two), Northumberland, Shetland (two) and Sussex (one or two).

Sora *Porzana carolina* Tresco (Scilly), 2nd–7th October. **Western Swamphen** *Porphyrio porphyrio* Alkborough Flats (Lincolnshire), 30th August to 7th October (previously in Suffolk). **American Golden Plover** *Pluvialis dominica* About 31, records from Argyll (three), Co. Clare, Co. Cork (two), Cornwall, Cumbria, Co. Galway, Isle of Man, Co. Kerry (four), Lancashire & N Merseyside, Co. Mayo (two), Norfolk, Northumberland, Orkney, Outer Hebrides (five), Scilly, Shetland (two), Co. Wexford (two) and Yorkshire. **Pacific Golden Plover** *Pluvialis fulva* Tacumshin (Co. Wexford), 14th August; Tiree (Argyll), 29th August to 1st September; Farne Islands (Northumberland), 13th September. **Semipalmated Plover** *Charadrius semipalmatus* Achill (Co. Mayo), 2nd–7th October; Carna (Co. Galway), 6th October. **Kentish Plover** *Anarhynchus alexandrinus* Pegwell Bay (Kent), 10th August; Kilnsea (Yorkshire), 10th September. **Hudsonian Whimbrel** *Numenius hudsonicus* Perranuthnoe (Cornwall), long-stayer to 7th October. **Sharp-tailed Sandpiper** *Calidris acuminata* Carrahane Strand (Co. Kerry), 7th October. **Baird's Sandpiper** *Calidris bairdii* In Britain, Deerness (Orkney), 18th August; Coldharbour Lagoon (Kent), 26th–28th August; Hatfield Moors (Yorkshire), 30th–31st August, same 6th–13th September; South Uist (Outer Hebrides), 7th September; Upton Warren (Worcestershire), 9th–16th September; Newquay (Cornwall), 25th–29th September; Boulmer (Northumberland), 30th September to 5th October; Davidstow (Cornwall), 2nd–6th October; Low Newton-by-the-Sea (Northumberland), 7th October. Also, a remarkable 19 in Ireland, with records in Co. Antrim, Co. Clare (four), Co. Derry, Co. Donegal, Co. Dublin, Co. Galway, Co. Kerry (six), Co. Waterford and Co. Wexford (three). **White-rumped Sandpiper** *Calidris fuscicollis* British records in Hampshire, Lancashire & N Merseyside, Lincolnshire, Norfolk, North-east Scotland, Northumberland (one or two) and Yorkshire; and four in Ireland, in Co. Derry, Co. Down, Co. Kerry and Co. Wexford. **Least Sandpiper** *Calidris minutilla* Tacumshin, 13th August; Cloghaun Marsh (Co. Clare), 14th–25th August. **Buff-breasted Sandpiper** *Calidris subruficollis* British records from Argyll (seven), Caernarfonshire, Cornwall (four or five), Fife, Hampshire, Kent, Orkney (five), Outer Hebrides (six), Pembrokeshire, Scilly (four), Shetland (two), Suffolk and Yorkshire (three). Ireland added a further seven, in Co. Clare, Co. Derry, Co. Donegal, Co. Galway, Co. Wexford (three). **Western Sandpiper** *Calidris mauri* North Uist (Outer Hebrides), 31st August to 4th September. **Semipalmated Sandpiper** *Calidris pusilla* Gann Estuary (Pembrokeshire), long-stayer to 10th August; South Uist, 18th–20th August; Camel Estuary (Cornwall), 28th–30th August; Titchfield Haven (Hampshire), 10th–11th September; Ythan Estuary (North-east Scotland), 17th–25th September; Tiree, two, 30th September to 1st October. In addition, c. 25 reached Ireland: Co. Clare, Co. Cork (three), Co. Kerry (12 or 13) and Co. Wexford (at least eight). **Terek Sandpiper** *Xenus cinereus* Tacumshin, 21st–23rd August. **Spotted Sandpiper** *Actitis macularius* Long-stayers Sutton Bingham Resr (Somerset), to 8th August,

John Kemp

371. Juvenile Semipalmated Sandpiper *Calidris pusilla*, South Uist, August 2016; part of a bumper crop of American waders in western Britain and Ireland in autumn 2016.

South Efford Marsh (Devon), to 14th August, and Hauxley (Northumberland), to 18th August; others Tiree, 14th–19th August; Dunbar (Lothian), 15th–21st August; St Mary's, 27th August; Cape Clear, 31st August; and Skellig Michael, 1st September. **Solitary Sandpiper** ***Tringa solitaria*** Cloghaun Marsh, 15th–20th August; Marston SF (Lincolnshire), 8th September. **Lesser Yellowlegs** ***Tringa flavipes*** British records from Anglesey, Devon (three), Dorset, Essex (two), Outer Hebrides, Scilly (two), Somerset and Staffordshire. Irish records including Co. Cork (two), Co. Dublin, Co. Kerry, Co. Waterford and Co. Wexford (four). **Marsh Sandpiper** ***Tringa stagnatilis*** Trabeg (Co. Kerry), 10th August. **Long-billed Dowitcher** ***Limnodromus scolopaceus*** Tacumshin, 5th August; Carrahane, 10th September; Dungarvan, 14th–15th September, then Ballyshunnock (Co. Waterford), 17th–18th September; Clonakilty (Co. Cork), 18th September; Rusheen Bay (Co. Galway), 19th–21st September; Frampton Marsh (Lincolnshire), 1st–7th October. **Great Snipe** ***Gallinago media*** Fair Isle, 13th–18th September, 26th–27th September and 3rd October; Out Skerries, 27th September and Unst (both Shetland), 2nd–5th October.

Brünnich's Guillemot ***Uria lomvia*** Anstruther (Fife), 25th–29th September, found dead 30th. **Caspian Tern** ***Hydroprogne caspia*** St Mary's, 6th October; Penzance (Cornwall), 6th October; Fremington, then Isley Marsh (both Devon), 7th October. **Whiskered Tern** ***Chlidonias hybrida*** Argal Resr/College Resr (Cornwall), 14th–16th September. **White-winged Black Tern** ***Chlidonias leucopterus*** Records from Breconshire, Cleveland (two or three), Derbyshire, Dorset, Essex (one or two), Greater Manchester, Kent (one or two), Lancashire & N Merseyside (two), Leicestershire & Rutland, Oxfordshire, Staffordshire, and Yorkshire (two). **Royal Tern** ***Sterna maxima*** Roonagh Lough (Co. Mayo), 16th–17th August, same ranging between Beale Strand and Littor Strand (Co. Kerry), and Carrigaholt (Co. Clare), 23rd–28th August. **Forster's Tern** ***Sterna forsteri*** Soldier's Point (Co. Louth), long-stayer to 1st October. **Bonaparte's Gull** ***Chroicocephalus philadelphia*** Long-stayers Wansbeck Estuary (Northumberland), to 9th August, and Oare Marshes, to 5th September; also Dawlish Warren, 20th August, same Teignmouth (both Devon), 10th September; Quilty (Co. Clare), 20th September; Whitburn (Northumberland), 5th October. **Franklin's Gull** ***Larus pipixcan*** Whittle Dene Resr (Northumberland), 16th September intermittently to 1st October. **'Azorean Yellow-legged Gull'** ***Larus michahellis atlantis*** Blackrock (Co. Cork), 7th–20th September; Blennerville (Co. Kerry), 5th October.

Yellow-billed Cuckoo ***Coccyzus americanus*** Lewis (Outer Hebrides), 28th September. **European Bee-eater** ***Merops apiaster*** Records from Cornwall (two), Hampshire (three) and Suffolk. **Eastern Kingbird** ***Tyrannus tyrannus*** Barra, 29th–30th September, then South Uist (both Outer Hebrides), 2nd October. **Red-eyed Vireo** ***Vireo olivaceus*** St Agnes (Scilly), 25th September, two, 26th–28th, one to 2nd October; Inishbofin (Co. Galway), 29th September to 4th October; Mizen Head (Co. Cork), 30th September; Calf of Man (Isle of Man), 1st October; St Martin's (Scilly), 5th October.

Brown Shrike ***Lanius cristatus*** Out Skerries, 27th–30th September; Aith, 30th September; Voe (all Shetland), 6th–7th October; Sanday (Orkney), 6th October. **Isabelline Shrike** ***Lanius isabellinus*** Nanquidno (Cornwall), 10th September; Foula (Shetland), 17th–22nd September. **Lesser Grey Shrike** ***Lanius minor*** Long Nanny (Northumberland), 13th and 20th September (captive-bred and released in Spain 16th August); Plymouth (Devon), 19th–30th September. **Woodchat Shrike** ***Lanius senator*** Records from Cumbria, Devon, Dorset, Co. Durham, Scilly and Co. Wexford.

Short-toed Lark ***Calandrella brachy-***

Anthony McGeehan

372. Red-eyed Vireo *Vireo olivaceus*, Inishbofin, Co. Galway, September 2016.

dactyla Records from Co. Cork, Fair Isle, Outer Hebrides, Scilly (two) and Shetland. **Cliff Swallow** *Petrochelidon pyrrhonota* St Mary's, 6th–10th September.

Eastern Crowned Warbler *Phylloscopus coronatus* Bempton, 4th–6th October. **Greenish Warbler** *Phylloscopus trochiloides* About 37, including 19 during 16th–23rd August: Cleveland, Cornwall, Dorset (three), Co. Durham, Fair Isle (five), Fife (two), Kent (two), Lincolnshire (two), Norfolk (five), North-east Scotland, Northumberland, Orkney (four), Shetland (four) and Yorkshire (five). **Arctic Warbler** *Phylloscopus borealis* In Shetland, eight during 27th August to 28th September; others Sanday, 5th September; East Hills (Norfolk), 15th–17th September; Landguard (Suffolk), 20th–21st September; Fair Isle, 2nd October; Bempton, 6th–7th October; St Mary's, 7th October. **Radde's Warbler** *Phylloscopus schwarzi* Records from Fair Isle, Fife, Norfolk (three), Shetland (two) and Yorkshire (two). **Dusky Warbler** *Phylloscopus fuscatus* Records from Norfolk, Shetland and Yorkshire. **Western Bonelli's Warbler** *Phylloscopus bonelli* Bardsey (Caernarfonshire), 15th–17th August; Galley Head, 15th–16th September, St Mary's, 25th and 30th September; Isle of May (Fife), 6th October. **Western Orphean/Eastern Orphean Warbler** *Sylvia hortensis/crassirostris* Loch of Benston (Shetland), 6th October. **Moltoni's Warbler** *Sylvia subalpina* Nanjizal, 1st September. **Subalpine Warbler** *Sylvia cantillans* Nanquidno, 27th September; St Martin's, 4th October; Portland Bill, 5th October.

Pallas's Grasshopper Warbler *Locustella certhiola* Kilnsea, 16th September. **Lanceolated Warbler** *Locustella lanceolata* Titchwell (Norfolk), 26th August; Fair Isle, 13th, 21st and 26th September, 2nd–4th October; Sumburgh, 17th September and Boddam (both Shetland), 2nd October. **Booted Warbler** *Iduna caligata* Fetlar (Shetland), 22nd August and 10th September; Porthgwarra, 23rd August; Sumburgh, 28th August and 3rd September; Fair Isle, 28th August to 5th September; Noss, 7th–10th September and Melby (both Shetland), 9th September; Great Ormes Head (Caernarfonshire), 3rd–7th October. **Sykes's Warbler** *Iduna rama* North Ronaldsay (Orkney), 28th August. **Melodious Warbler** *Hippolais polyglotta* About 12, including eight during 16th–27th August: Caernarfonshire (three), Cornwall, Co. Donegal, Dorset, Kent, Pembrokeshire, Scilly (three) and Sussex. **Aquatic Warbler** *Acrocephalus paludicola* Carrigaholt, 3rd August; Titchfield Haven, 13th August; Ness Point (Suffolk), 13th August; Pagham Harbour (Sussex), 16th August; Lytchett Bay (Dorset), 31st August to 1st September; Shapwick Heath (Somerset), 1st September. **Paddyfield Warbler** *Acrocephalus agricola* Nanjizal, 7th September; Unst, 27th September and 2nd–3rd October; Fair Isle, 28th–29th September. **Blyth's Reed Warbler** *Acrocephalus dumetorum* In Shetland, 11 during 20th September to 7th October, also three on Fair Isle; others in Caernarfonshire, Devon, Dorset, Fife, Lothian, Co. Wexford and Yorkshire. **Great Reed Warbler** *Acrocephalus arundinaceus* Quendale (Shetland), 22nd September.

Rose-coloured Starling *Pastor roseus* Records from Ceredigion (two), Co. Cork, Cornwall (two or three), Dorset (one or two), Fair Isle, Gower, Highland, Kent, Lincolnshire, Norfolk, Northumberland, Shetland (two) and Yorkshire.

Swainson's Thrush *Catharus ustulatus* Tiree, 22nd–23rd September; South Uist, 22nd–25th September; Fetlar, 3rd–7th October. **White's Thrush** *Zoothera dauma* Hamnavoe (Mainland Shetland), 3rd October; Fetlar, 5th October; Holy Island (Northumberland), 5th October; Unst, 7th October. **Siberian Thrush** *Geokichla sibirica* Unst, 6th October. **Black-throated Thrush** *Turdus atrogularis* Out Skerries, 3rd October; Sullom (Shetland), 4th October. **Thrush Nightingale** *Luscinia luscinia* Holy Island, 18th September. **Red-flanked Bluetail** *Tarsiger cyanurus* East Hills, 18th September; Out Skerries, 2nd October; Fair Isle, 2nd and 6th–7th October; Bamburgh (Northumberland), 4th October; Spurn, 5th–7th October; Crail (Fife), 5th–6th October; Fetlar, 6th October; Easington (Yorkshire), 7th October; North Ronaldsay, 7th October. **Siberian Stonechat** *Saxicola maurus* Flamborough Head, 4th–5th October; Landguard, 6th–7th October; Donna Nook (Lincolnshire), 6th–7th October.

Citrine Wagtail *Motacilla citreola* Records from Caernarfonshire, Co. Cork, Cornwall, Cumbria, Dorset, Fair Isle, Lancashire & N Merseyside, Outer Hebrides, Scilly (two) and Yorkshire. **Blyth's Pipit** *Anthus godlewskii* St Mary's, 4th–5th October. **Tawny Pipit** *Anthus campestris* Records from Cornwall (two), Devon, Dorset, Kent, Norfolk, Sussex and Yorkshire. **Olive-backed Pipit** *Anthus hodgsoni* Records from Co. Durham, Fair Isle (three), Outer Hebrides, Scilly, Shetland (three) and Yorkshire. **Pechora Pipit** *Anthus gustavi* Fair Isle, 2nd–7th October. **Red-throated Pipit** *Anthus cervinus* Fair Isle, 18th September, 2nd and 6th October; Lundy (Devon), 21st September; St Mary's, 7th October.

Arctic Redpoll *Acanthis hornemanni* Foula, 30th September; Unst, 30th September to 7th October. **Rose-breasted Grosbeak** *Pheucticus ludovicianus*

Roger Riddington

373. Yellow-browed Warbler *Phylloscopus inornatus*, Shetland, September 2016; there was another massive influx of this delightful species in autumn 2016, and it is fast becoming a regular migrant rather than a scarcity along the east coast at least.

Garinish (Co. Cork), 29th September to 7th October. **Black-headed Bunting** *Emberiza melanocephala* Unst, 17th September. **Rustic Bunting** *Emberiza rustica* Papa Westray (Orkney), 9th September; Kilnsea, 6th–7th October. **Common Yellowthroat** *Geothlypis trichas* Bann Estuary (Co. Derry), 18th September.

Notable records of commoner species

Cory's Shearwater *Calonectris borealis* Galley Head, 670 on 3rd August, 824 on 3rd September; Cape Clear, 2,725 on 3rd September. **Great Shearwater** *Puffinus gravis* Galley Head, 1,479 on 3rd September; Cape Clear, 4,245 on 3rd September; Old Head of Kinsale (Co. Cork), 403 on 9th September. **Sooty Shearwater** *Puffinus griseus* Lewis, 915 on 7th September; North Ronaldsay, 869 on 7th September; Flamborough Head, 1,003 on 17th September; Boulmer, 714 on 17th September. **Balearic Shearwater** *Puffinus mauretanicus* Peaks of 532 off Portland, and 294 off St Aldhelm's Head (both Dorset), 20th August.

Great White Egret *Ardea alba* Widespread influx, with peaks of 15 at Blagdon Lake (Somerset/Avon), 5th–6th October; 14 at Ham Wall (Somerset), 27th September; and 12 at Dungeness (Kent), 7th October. **Eurasian Spoonbill** *Platalea leucorodia* Peaks of 35 Titchwell, 17th and 29th August, and 41 Stiffkey Fen (both Norfolk), 5th September; up to 60 Brownsea Island/Poole Harbour/Arne (Dorset) in early October.

Avocet *Recurvirostra avosetta* Cliffe Pools (Kent), 2,930, 18th September. **Black-tailed Godwit** *Limosa limosa* Frampton Marsh (Lincolnshire), 4,000, 7th September; Cliffe Pools, 3,830 18th September. **Curlew Sandpiper** *Calidris ferruginea* Frampton Marsh, 243 on 22nd and 258 on 23rd August. Good numbers elsewhere, next-highest count 37 Cley (Norfolk), 21st August. **Great Skua** *Stercorarius skua* Sheringham (Norfolk), 262 past on 17th September. **Black Tern** *Chlidonias niger* Dungeness, 159, 19th August; Shellness (both Kent), 155, 27th August. **Mediterranean Gull** *Larus melanocephalus* Breydon Water (Norfolk), roost of 679, 8th August; Fishbourne Creek (Sussex), 800, 7th September.

Yellow-browed Warbler *Phylloscopus inornatus* Widespread influx from 14th September, including 54 on Fair Isle on 20th, 139 at Flamborough and 34 at Filey (both Yorkshire) on 21st, 24 on Whalsay (Shetland) on 22nd September. Another surge on 2nd October, with 72 Fair Isle, 30 Foula and 60 Mainland Shetland, 35 Collieston (North-east Scotland), 86 Sanday and 51 North Ronaldsay. At least 37 reached Ireland during 4th–7th October. Records from inland counties: Cambridgeshire, Derbyshire, Greater London, Leicestershire & Rutland, Nottinghamshire, Somerset and Worcestershire. **Willow Warbler** *Phylloscopus trochilus* Spurn, 350 and Bardsey, 600, 23rd August. **Spotted Flycatcher** *Muscicapa striata* Bardsey, 65, 23rd August. **Pied Flycatcher** *Ficedula hypoleuca* Good numbers on east-facing coasts, peaks of 44 at Blakeney Point and 26 at East Hills (both Norfolk), on 19th August, 37 at Spurn on 23rd August. **Whinchat** *Saxicola rubetra* Widespread influx in September, inc. 30 Winterton Dunes (Norfolk), 9th September, 25 Porthgwarra, 15th September and 20 Spurn, 24th September. **Lapland Bunting** *Calcarius lapponicus* Good numbers, including 115 on Foula on 11th September, 84 on Tory Island (Co. Donegal) on 12th and 74 Fair Isle on 13th; then 100 on South Uist on 1st October and 86 on Sanday on 2nd.

Tail piece

Raptors, uplands and peatlands

There should be about 2,600 pairs of Hen Harriers *Circus cyaneus* in Britain: the last national census found just 650. In England, the situation is appalling: there should be at least 300 pairs, yet in 2016 there were reported to be just three. A picture has emerged of the systematic killing of harriers across the uplands, as well as at winter roosts. Much of the evidence is circumstantial, but there is now sufficient to suggest that these birds are being deliberately killed to enhance the yield of gamebirds for shooting. Things seem to be worst where grouse are driven across moorland for shooters to kill as they fly over. Since this pastime is expensive, the gunners demand the maximum number of targets, so that some estates are effectively intensive farms for Red Grouse *Lagopus lagopus.*

Hen Harriers have been fully protected since 1954, but to little effect. Anger over the destruction of our predatory birds has risen to the extent that Mark Avery's latest e-petition calling for a complete ban on driven grouse shooting gathered 123,000 signatures. A previous petition received dismissive comment from the UK Government via Defra. Meanwhile, Scotland has introduced vicarious liability, whereby landowners are legally responsible for the actions of their staff. As a result, there is now at least one landowner with a criminal record. The UK Government's environment minister at the time (who owns a grouse moor in Scotland) refused this option for England.

Against this background, it was timely that Sheffield Hallam University hosted a conference on 9th–10th September 2016 on *Raptors, Uplands and Peatlands: conservation, land management and issues.* The conference was about much more than just Hen Harriers, but with the desperate state of this species it attracted most attention, and for the benefit of readers who were not able to attend, a summary of the main speakers is presented here.

The meeting began with a presentation from Angela Smith, (Labour) MP for Penistone & Stocksbridge. A third of her constituency lies in the Peak District National Park. There are no Hen Harriers on her patch, and the only Peregrine Falcons *Falco peregrinus* are in urban areas. Having walked the hills for years, she knows that there are plenty of grouse, but no raptors. Banning driven grouse shoots would antagonise landowners, and a licensing system would also be unpopular. While the voluntary approach looks bleak, conservationists and landowners should work towards a consensus. However, the essential precursor to any collaboration is that illegal killing must stop.

Ian Rotherham, of Sheffield Hallam University, then introduced the programme and spoke of the challenges faced by some key species that continue to suffer illegal persecution. In addition, even on protected upland landscapes, there is disturbance through uncontrolled and sometimes illegal recreational access, while government cuts mean fewer wardens or countryside rangers on the ground.

Steve Redpath, of Aberdeen University, spent much of his talk urging compromise. He suggested that the problems arose following the invention of the breech-loading shotgun, and the acquisition of highland estates by the aristocracy. Soon afterwards, no fewer than five Scottish raptors were lost, although Hen Harriers clung on, and even increased during wartime, when gamekeepers went off to fight. More recently, the commercial value of driven grouse moors has blossomed, but his research at Langholm has shown that high densities of Hen Harriers would make the industry inviable. He suggested that supplementary feeding to divert adult harriers away from grouse during the nesting period was one way forward; and that brood management, where eggs or chicks are removed from the nest and reared in captivity before release away from the uplands, should be explored further. But he accepted that frustration over the continued killing of raptors had driven conservationists away from the negotiating table.

Two talks from Natural England scientists followed. Stephen Murphy described a study of Hen Harriers during 2002–15. Nest productivity in England is broadly comparable with that in Scotland, and the population could reach 160 pairs within 30 years. However, tracking of 146 young harriers showed that 72% died during their first year, and such mortality is sufficient for any recovery to stall. Often, the satellite signals cease abruptly and the bird cannot be found. Investigators believe that, when a bird is killed, its transmitter is destroyed and the corpse hidden. Adrian Jowitt described the current Defra Recovery Plan. The core actions are to monitor breeding and wintering populations, follow up diversionary feeding, share information on wildlife crime, continue supporting nest and roost protection, trial brood management and undertake a feasibility study into a reintroduction in southern England.

Philip Merricks, from the Hawk and Owl Trust, admitted that it is a disgrace that Angela Smith cannot see Hen Harriers in her constituency, but felt that the only option was the Government's six-point plan. He stressed that law enforcement is crucial, without offering any suggestions as to how it might be accomplished. He believes that illegal killing is an 'understandable crime' since gamekeepers fear for their jobs.

For me, the highlight of the meeting was the review given by Pat Thompson, RSPB, of the highs and lows of the driven grouse industry. Around 800,000 ha of moorland are under rotational burning, despite its adverse effects on hydrology, peat chemistry, water quality and river flow, and possibly increased flood risk downstream. The water companies have confirmed that these increase costs to consumers. Only 10% of upland bog and heath is in 'favourable' condition, including land designated as SSSIs. Recent research has confirmed that grouse moors are associated with the illegal use of poisons, lower nesting success of raptors, and significantly reduced survival of breeding female Hen Harriers. In some areas, improved husbandry since the 1930s has increased the number of grouse from 50 to over 250 birds/km^2. This density has probably led to increased transmission of diseases such as strongylosis, louping ill and bulgy eye, and can be sustained only by veterinary management through drug medication, and the control (i.e. killing) of actual or potential hosts of the vectors. It also means that there is no space for birds of prey on these intensively managed moors.

Mark Avery was (perhaps justifiably) upbeat, having seen his petition reach Westminster. Twenty-five years of negotiation had seen no progress: conservationists had tried to compromise, moorland managers refused. Put simply, driven grouse shooting depends upon wildlife crime. Given landowners' intransigence, the only option is to ban the practice.

Rhodri Thomas summarised the Peak District Bird of Prey Initiative, but confessed that it had failed. None of the targets set for 2015 had been met and persecution continues. Barry O'Donoghue, Eire National Parks & Wildlife Service, reported on the situation in Ireland's uplands, where there is very little grouse shooting. Several iconic species are in decline: changes in agriculture and the abandonment of traditional farming methods, perhaps coupled with climate change, are playing a part here.

Tim Baynes, from Scottish Land and Estates, suggested that banning driven grouse shooting was 'bonkers'. His view is that enforcement does not work but that vicarious liability had tightened up estates in Scotland. He supported a voluntary accreditation scheme (Wildlife Estates Scotland) to which 39 estates have signed up. However, raptors continue to disappear and poisoned birds are still found. Clearly, there is a long way to go.

Sonja Ludwig, Langholm Project, gave an excellent talk on diversionary feeding for harriers. Providing rats and chickens as alternative prey during the breeding season was successful: fewer grouse chicks were killed and all provisioned nests fledged young. The cost was about £1,000 per nest but, although grouse numbers increased by about 8% per year, they did not reach a level that would make shooting economically viable. It seems that diversionary feeding can only be part of any solution. Alan Fielding brought the conference to a close with his stimulating opinions. In western Scotland, Hen Harriers nest in woodlands, crops and marshes, as well as heather moor, although the dispersal ability of the birds means that many youngsters wander into lethal areas.

Overall, this was an excellent event and Ian Rotherham and his colleagues are to be congratulated. Inevitably, speakers dwelt upon the Hen Harrier in England, and there was a consensus: that illegal killing is the root cause of its decline. It was disappointing that so few representatives of the moorland estates were there, since invitations were widely disseminated.

David T. Parkin

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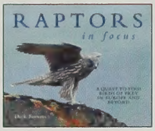

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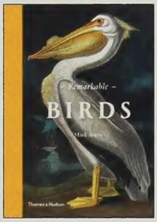

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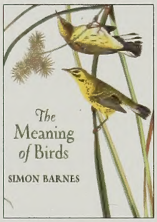

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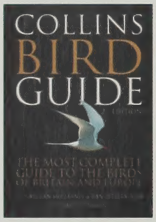

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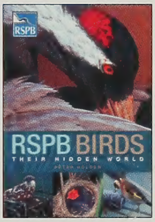

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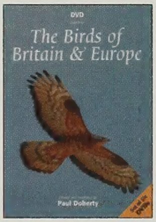

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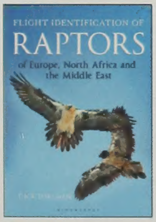

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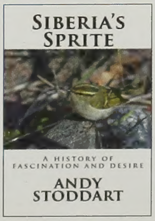

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